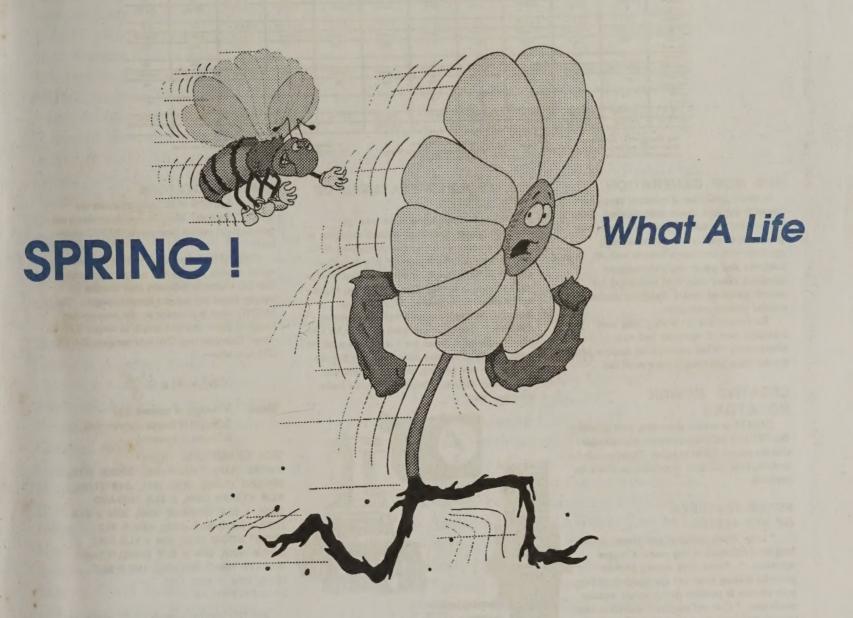


APRIL 1994



FCC Highlights * ARRL Report * VE Exams Schedule * Public Service Report DX Column * Elmer's Corner * Club Reports * Want Ads * Much More

Be a Know it All, Read Auto-Call!



THE NEW GENERATION ROTATORS

THEY'RE NOT YOUR FATHER'S HAM "M"

	1					parison C	Chart			1	
	1000			T	he New Genera	nois				Old Gen	eration
Mode/ Specs	Create RCS	Create RCSA	Create RCSB	Emoto 105TSX	Emoto 747SRX	Emoto 1105MSX	Emoto 1200Flox	Emoto 1300MSAX	Emoto 1800FSX	Yees	Telex T2X
Florate Torque F/8	43	116	160	37	50	57	143	215	287	67	83
GOR HIGHER Ant Inersa	N/A	N/A	N/A	100	400	700	1000	1800	3000	N/A	NA
Brit. Static Forque F/8	506	1085	1450	215	502	717	1290	1792	2150	417	750
m Tower (8)	10	25	25	-1	22	27	27	33	36	15	20
Mast mount	4	5	7	5	9	12	12	15	16	7.5	. 10
Hotaling speed 3600	60-150 sac variable	60-150 sec	60-150 sec variable	55	35	65	40	. 77	80	60	60
new Delay	None	2 sec	3 sec							None	None
Freset	Oot 3	Opt 3	Y01	^0	^0	Opt	Ves	yes	yes	no	70
COMPUNE	no	no	~0	10	ves	Y#5	Yes	yes	yes	70	no
. 30 A 60HS	80VA	140VA	200VA	70VA	70VA	70VA	90VA	120VA	150VA	26V AC	26V AC
Masz Due	2-2.5 in	2-2.5 in	2-2.5 in	2.2419	* 6-24 in	1 6-2.4 in	1.6-2 4 in	2.4-3.1 in	3.5-5.5 in	2 m	2 10
Control were	7 cond	7 cond	7 cond	7 cond	? cond	7 cond	7 cond	7 cond	7 cond	8 cond	8 cond
max load #	880	1540	1540	660	1100	880	1760	1760	2200	400	800
PIONOR WV 8	13	17	20	7.5	9	11	11	13	39.5	24	20
drave type	worm onve	worm drive	worm anve	disk	friction	friction	friction	friction	Iriction	wedge	wedge
Self center mast clemp	Yes	yes	yes	Adı	Adı	Adj	Adj	Adj	Adj	no	no .
Scecial notes	3-6	3-6	3-6	6	1-6	6	2-6	6	6	4-7	4-7
Pricing (5)	\$269.00	449.95	799.00	209 95	399 00	589.00	679.00	1099.00	3272.00	369.95	439.95
With Preset	\$379.00	\$528.95				\$663.00					

THE NEW GENERATION

An entire generation of amateurs have grown up knowing only one rotator manufacturer. Those old favorites are still popular. But, now a new generation of rotators are out to set high standards with innovative features such as: large machined steel gears, cast and machined aluminum cases, solid state controllers for smooth start/stop, preset, computer control and circular position indicators.

The bottom line is... strong, long term reliability, ease of operation and cost effectiveness. When you erect an antenna system the last thing you need is rotor problems!

CREATIVE DESIGN ROTATORS

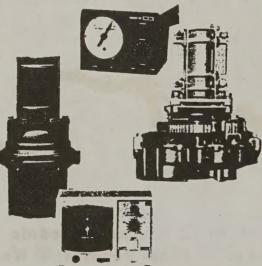
CREATE is serious about long term reliability. The CREATE RC5 series rotators were designed with the serious DX'er in mind. Three models for medium, large and ultra large antenna arrays are available.

ROTOR FEATURES OF RC5 SERIES

Large strong reduction gear system provides long term reliability during years of rugged operation. * Worm drive gearing provides powerful braking force and low backlash to keep your antenna in position during severe weather conditions. * Cast and machined aluminum case provide the strength required for long lasting service. * Mast clamp guides for ease of mast installation.

CONTROLLER FEATURES OF RC5 SERIES

* Speed control using silicon control rectifiers allows slow speed without reduction in rotation torque. Rotating spec is constant 60 to 200 seconds per 360 degrees. * Reverse delay control (RDC). Delays reverse command to rotor until antenna is at rest. Prevents damage to rotor antenna and tower system. * Circular dial indicator, for quick accurate reading of antenna direction. Great circle overlay available for USA (west-cent-east).* Preset (on 3 models) a must for quick setting of antenna direction. Just turn the knob to the new heading, the rest is automatic. Won't waste your time holding down the brake lever and wait



EMOTO ROTATORS

More than 60% of all Japan amateurs use EMOTO rotators. Many unique innovations and international patents have made EMOTO number

EMOTO has a fool proof method to calculate which of their rotators will satisfy your needs. This GD2 formula considers your antenna (s) weight, boom and longest element length. The EMOTO sheet is in metric so one must convert weight 2.2lbs= 1kg and length in meters 3.3ft.=1 meter. Calculate your GD2 than compare EMOTO CD2 spec above.

$$GD^2 = W \times \frac{L^2 + B^2}{12}$$

Where: W: weight of antenna (kg) L: length of longest element (m) B: length of boom(m)

GD2 EXAMPLES: Kgm2 TH7DX (437), TH3JR (63), 205BA (675), DISC7-3 (1300), A3S (61), A4S (173), KLM KT34XA (378), 3 ELE TRIBAND (150), 6 ELE TRIBAND (400), 20M 5 ELE (750), 15M 6 ELE (650), 40M 2 ELE SHORT BOOM (240), 40M 2 ELE FULL BOOM (800), 80M 2 ELE (1500), STACK ARRAYS 10M 5 ELE (60), 15M 5 ELE (200), 20M 5 ELE (750), 60+200+750=1010

EMOTO also has a robust AZ-EL rotator that has computer I/O ports. For those working satellites or EME moon bounce the EV700D5X should do the job, as rotating torque is more than double the YAESU G5400B AZ-EL.



Electronic Equipment Bank 323 Mill Street, N.E. Vienna, Va. 22180 Phone (703) 938-3350 Orders 800-368-3270 Call - Write - FAX - for full detailed flyer EEB Your Professional Amateur Dealer

The Foundation For Amateur Radio, Inc.



Washington, DC

MEMBER CLUBS

Adams County Amateur Radio Society

Alexandria Radio Club

Amateur Radio Research and Development Corp.

AMSAT - Radio Amateur Satellite Corporation

Anne Arundel Radio Club

Antietam Radio Association, Inc.

ARINC Amateur Radio Club

Arlington Amateur Radio Club

Baltimore Amateur Radio Club

Baltimore Radio Amateur Television Society

Capital City Amateur Radio Society

Capitol Hill Amateur Radio Society

Carroll County Amateur Radio Club

Central Maryland Amateur Radio Club

Chaverim of the Greater Washington Area

Columbia Amateur Radio Association

Culpeper Amateur Radio Association

D-MARC - Digital MidAtantic Radio Council

Department of State Amateur Radio Club

Fauquier Amateur Radio Club

Frederick Amateur Radio Club

Frederick Amateur Repeater Group

Friendship Amateur Radio Club

Goddard Amateur Radio Club

Green Mountain Repeater Association

Herndon Repeater Group

IBM Amateur Radio Club

Johns Hopkins University APL ARC

Kent Island Amateur Radio Club

Laurel Amateur Radio Club

Leisure World Amateur Radio Club

Loudoun Amateur Radio Group

MD/DC MARS (Navy Marine) Association

MADRAS

Maryland Emergency Phone Net

Maryland FM Association

Maryland Mobileers Amateur Radio Club

Mercury Amateur Radio Assn, NE Area

Metropolitan Communications Network

Metrovision Amateur TV Club

Mid-Atlantic DX & Repeater Assn.

Montgomery Amateur Radio Club

Montgomery Auxiliary Communications Service

Moose Amateur Radio Club

Mount Vernon Amateur Radio Club

National Capitol DX Association

Naval Research Laboratory Radio Club

Northern Virginia FM Association

Northern Virginia Radio Club

Ole Virginia Hams Amateur Radio Club

Opequon Radio Society

Pentagon Amateur Radio Club

Potomac Area VHF Society

Potomac Valley Radio Club

Prince George's Wireless Association, Inc.

Prince George's County ARES/RACES

Quarter Century Wireless Association, Inc.

Baltimore Chapter #20

Del-Mar-VA Chapter #150

Shenandoah Valley Chapter #137

Vic Clark Chapter #91

Washington Chapter #23

Rock Creek Amateur Radio Association

St. Mary's County Amateur Radio Association

Shenandoah Valley Amateur Radio Club

Southern Maryland Amateur Radio Club

Southern Patuxent Amateur Radio Club

Springfield Estates Elementary School ARC

Stafford Amateur Radio Assn.

Sterling Park Amateur Radio Club

Summit Amateur Radio Association

Tri-County Amateur Radio Club

T-MARC, Middle Atlantic Repeater Council

Vienna Wireless Society

Voice of America Amateur Radio Club

Washington Adventist Amateur Radio Assn.

Washington Area Young Ladies ARC

Woodbridge Wireless, Inc.

Official Journal of the Foundation for Amateur Radio FOUNDATION OFFICERS Columns

Foundation President Ton			
	(301) 262-1917	Coming Events	3
Executive Vice President	Mary Morris, N4TCI	Presidents Corner	6
	(703) 971-3905	FCC Highlights	7
		ARRL Report	10
Admin. Vice President Vickki Gigan		DX DX DX	
	(301) 249-2609	Elmer's Corner	15
Vice PresidentRobert A	rmstrong, WA4SQL	PIC MD/DC	17
	(703) 751-2294	Skywarn	
	T	Traffic Fun	
Vice President	(301) 927-1797	Training Classes	
	(301) 321-1131	VEC Co-op	
Vice President John	Chitwood, K3RGB		HI CONTRACT
	(301) 799-7360		
Vice President	ek Sommer, N4OSD	Club Columns	
Treasurer Mildred	(301) 577-6659	Anne Arundel Radio Club	44
	(301) 377-0039	AMSAT	39
Recording SecretaryJo	oe Seasely, KA3UZI	Capitol City ARS	39
	(301) 725-5822	Green Mountain Repeater Assn.	44
Comment of Comments	that Smith VALMD	Laurel ARC	45
Corresponding Secretary E	(703) 536-8469	Leisure World ARC	46
		MADRAS	47
AUTO-CALL MAGAZIN	NE	Mt. Vernon ARC	40
STAFF		NCDXA	41
Editor	Doug Allen, N3FHM	NVFMA	48
	(410) 437-6258	Prince George's Wireless Assn.	47
		Rock Creek ARA	42
Circulation Manager Jol	(703) 536-9537	Springfield Estates ARC	42
	(703) 330-3337	Shenandoah Valley ARC	48
Deadline for copy is the 5th of the month.		Vienna Wireless Society	
welcomed, but the editor does reserve the r	ight to edit or reject	WMA/Federal Systems (IBM)	38
any portion of any copy.			
AUTO-CALL Copyright 1992 Permission is	granted by FAR to	Advertisers	
reprint from this publication provided credit			
		Electronic Equipment Bank	2
AUTO-CALL is published monthly as the Of Foundation for Amateur Radio, Inc. Comment		Electronic One-Stop	24
do not necessarily reflect the opinions of t		Amateur Radio of Hagerstown	36
effort is made to investigate advertisers, th		West Electronics	37
can be applied.		2 Land Communications	38
ATIMO CATAL	aid subscription of man 1 200 and a total	Capitol City Internet	38
AUTO-CALL has a paid subscription of over		Packet Gadgets	48
circulation of over 2,100. Copies are sold at local stores and a number of complimentary and swap copies are mailed each month. The magazine is entered as third class nonprofit matter at the		K3UAL Print	48
		Micro Data Computers	49
Post Office at Arlington, VA.	n, VA.	T.J. O'Brien	49
Subscription Rate is \$8 per	r vear.	Maryland Radio Center	50
Subscriptions received after die 15th of		R.F. Connection	51
started with the following mont	h's Issue	Mugs & Stitches	51
AUTO-CALL MAGAZINE		G & G Electronics	52
P.O. Box 7612 Falls Church, VA 22040-7	1612		
D 4	AUTO	CALL April 1	004

COMING EVENTS

Mar 26-27	Greater Baltimore Hamboree, Timonium, MD
Apr 3*	Chesapeake ARS, Virginia Beach, VA
Apr 4	Palm Sunday
Apr 10	Penn-Del ARC, New Castle, DE
Apr 11	Easter Sunday
Apr 29-May 1	Dayton Hamvention, Dayton, OH
May 7	Kent Island Hamfest, Grasonville, MD
May 8*	Roanoke Valley Hamfest, Venton (Roanoke), VA
May 8-9*	Greenville, NC Hamfest
May 9	Mother's Day
May 15	Wheeling W. VA Hamfest, Wheeling, WV
May 15	Warminster ARC, Wrightstown, PA
May 15	Armed Forces Day
May 20-22	Atlantic Div./N.Y. State Convention, Rochester, NY
May 22	Antietam RA Hamfest, Hagerstown, MD
May 29	Maryland FM Assoc. Hamfest, Howard Co. Fairgrounds, Howard Co., MD
June 5*	Ole Virginia Hams Hamfest, Manassas, VA
June 5*	Breeze Shooters ARC Hamfest, Butler, PA
June 5	Tamaqua Transmitting Society, Tamaqua, PA
June 10-12	ARRL National Convention, Arlington, TX
June 12	Hanover Area Hamming Assoc., Hanover, PA
June 19	Frederick Hamfest, Frederick, MD
June 25-26*	Field Day '94
July 3	Murgas ARC, Wilkes Barre, PA
July 4	Harrisburg, RAC, Bressler, PA
July 10	Genesee RA, Alexander, NY
July 10	North Hills ARC, Pittsburg, PA
July 10	BRATS, Timonium, MD
Aug. 7	Mid-Atlantic ARC, Warrington, PA
Aug. 7	Southern Patuxent, Upper Marlboro, MD
Aug. 14	Delaware-Lehigh ARC, Easton, PA
Aug. 14	Summit ARA, Westminster, MD
Aug. 27	PROS, Chaffee, NY
Aug. 28	Glouchester Co. ARA, Mullica Hill, NJ
Aug. 28	Tri-State ARC, Matamoras, PA
Sept. 10	Radio Assn of Erie, Erie, PA
Sept. 11	Butler Co, ARA, Butler, PA
Sept. 11	FARFEST '94, Gaithersburg, MD
Sept. 17	Buffalo Hamfest, Buffalo, NY
Sept. 18	S. Jersey Radio Assn., Pennsauken, NJ
Sept. 24-25	York, PA
Oct. 15	Radio Amateurs Greater Syracuse, Syracuse, NY
Oct. 23	R.F. Hill ARC, Sellersville, PA
Oct. 30	Mason-Dixon, Westminster, MD

* Denotes Not Confirmed

Thanks to Hugh Turnbull - W3ABC and Bob Milligan - KI4MB for providing much of the above information. Please send a copy of your Hamfest Flyer and Information to Auto-Call and keep us advised of any changes. We are anxious to provide our readers with timely information and help to avoid possible conflicts when scheduling activities.

Presidents Corner

An Incident (A True Story)

I had this trapped wire antenna, but didn't know what freqs. it was for. So I decided to give it a test, if ever this winter would thaw. Well Saturday evening seemed perfect and I climbed 16 steps to my hill. There's a pulley system there, that for testing just fit the bill.

My net was scheduled for six o'clock; a half hour and I would be there, to compare two different antennas, a test that would prove to be fair. My system is handy to manage, though thirty five feet in a tree. Just lower and switch antennas: how much of a job could this be?

The pulley hangs from a branch by a wire that is strong and secure. It was built to stand heavy stress, and would stay up there for sure. I lowered the dipole carefully and untied it at the ground. But all of a sudden looked up, and heard my pulley going 'round.

My system rope was spooling off and fell limply in a pile. Not dismayed, I planned a new scheme: it would only take a while. I tied a socket to my rope and slung it up in the air. As luck and skill would have it, the darn thing stayed up there!

But this was not to be my day: the socket snagged a branch. I pulled and tugged and snapped and hung, but never had a chance. Time pressed on and it was getting dark: time for the MEPN. I'd come back later when weather was bad; things go better then!

This story has a terrible ending that I'm very embarrassed to tell. While coming down those sixteen steps, this writer slipped and fell. Cuts and bruises, nothing worse, but feeling like a jerk. I have this wire antenna, and still wonder if it will work.

Tony, WA3YLO

SAMUEL F. B. MORSE 150TH ANNIVERSARY UPCOMING

On May 24, a significant Maryland event occurred which led to the hobby we now enjoy. Sam and friends mad their first successful transmission of information by wire from Washington to far away Baltimore. It would be great, if a Maryland club organized a special event, (perhaps from a club station) to commemorate this significant event. I am going to talk it up to my club and others I speak with. With luck, the event could be announced on these pages.

The Foundation For Amateur Radio, Inc.



Washington, DC

FCC HIGHLIGHTS

By Jack Kelleher, W4ZC

ARRL Seeks Primary Status Segments in 902-928 MHz.

In Mid-1993 the FCC proposed to accommodate Wind profiler radars at 915 MHZ, and in a separate action, proposed to expand the AVM (Automatic Vehicle Monitoring) Service into a new location and Monitoring Service in the entire band. In the latter preceding the FCC invited comments on whether they (the commenters) believe it possible to establish reliable LMS systems considering the number and diversity of other users of this band. If not, commenters should offer potential solutions, such as removing Part 15 users and amateur operations from the band, restricting where such users could operate in the band, or placing stricter limitations on operations. (An Editorial in the June 1993 issue of QST traces the history of allocation and use of this band since 1947).

ARRL has filed a Petition for Rule Making with the FCC asking that the Amateur Radio Service be granted Primary Status in the 902-904 and 912-918 MHz. portions of the band. ARRL wants amateurs to have primary status because new developments in the band could make ham usage more difficult there, and a primary allocation would help preserve amateur operations; and because the FCC has previously stated that amateurs should use 902-928 MHz to serve amateur needs that formerly used 220-222 MHz.

The ARRL petition is covered in much greater detail in the February 15th issue of the W5YI Report.

Amateur Status in 2300-2450 MHz band may be in Jeopardy.

A preliminary plan from the National Telecommunications and Information Administration (NTIA) for reallocating government frequencies to nongovernment uses does not go far enough in protecting the needs of amateurs, the ARRL says (See the ARRL Letter 2-24-94)

Specifically affected would be the 2300-2450 MHz band. The preliminary plan would not necessarily result in the loss of frequencies for amateurs, but amateur sharing could be more difficult than it now is with government users.

NTIA proposes to leave 2400 to 2402 MHz and 2417 to 2450 MHz as now allocated, in part to permit continued amateur and especially amateur satellite operation. 2390 to 2400 MHz and 2402 to 2417 MHz would be made available for new nongovernment services as early as August 1994, and 2300 to 2310 MHz would be made available later, under the NTIA plan. The Plan is how NTIA proposes to implement a reallocation of spectrum from government to nongovernment use, as mandated by Congress last year.

In 1992 NTIA issued a notice of inquiry asking spectrum users what their future needs would be. The League responded with a list, including "continued or upgraded access to 2300 MHz for both terrestrial and satellite uses.

Continued on next page

April 1994 AUTO-CALL Page 7

The League said that recent advances in techniques, such as packet radio and other digital modes, as well as an explosion in the number of licensed amateurs, was causing more and more of them to move up in frequency.

ARRL's Technical Relations Manager, Paul Rinaldo, W4RI, says the 2300 MHz issue is important "because it's spectrum. Amateurs have always tended to move up in frequency. The 2-meter band filled up, now 222 MHz is filling up, and so on. Other services tend to drift as well."

Rinaldo says that while amateurs currently cannot demonstrate great usage of the 2300 MHz range, neither can other services. "This range is vital to amateurs," Rinaldo says "because of its short-range propagation characteristics, which are essential to networking and which will be needed for very high speed digital links as they become available to amateurs."

Radiation Hazards Controversy Continues

Early in 1993 the FCC proposed updating its guidelines for evaluating environmental RF radiation, in keeping with the revised guidelines adopted in 1992 by the American National Standards Institute (ANSI) and the Institute of Electrical and Electronics Engineers (IEEE). At that time the FCC said that the new guidelines differ significantly from the 1982 standards which they replace. For example, two tiers of maximum permissible exposure levels are recommended:

One level is for controlled environments (locations where there is exposure that may be incurred by persons who are aware of the potential for exposure as a concomitant of employment; by other cognizant persons; or as incidental result of transient passage through areas where exposure levels may be above those for controlled areas).

The other level is for uncontrolled environments (locations where there is exposure of individuals who have no knowledge or control of their exposures. The exposures may occur in living quarters or workplaces).

The maximum permissible levels of exposure are stringent for an uncontrolled environment than for a controlled environment.

In the January 1994 column we reported on comments to the FCC from the Environmental Protection Agency which said, among other things, that there are "serious flaws" in the new standard and that it contains unsupported claims. EPA recommended that radio amateurs be considered to be "Members of the public", and thus apparently subject to more stringent RF exposure limits (presumably the uncontrolled environment exposure limits).

The EPA cited RF exposure recommendations from a different source, the National Council on Radiation Protection and Measurements, which recognizes that biological effects may come from heating effects, non-heating effects, or a combination of the two.

During February 1994 the ARRL, in its comments on the FCC's proposal, said that the proposal was premature, and more properly should have been introduced as an FCC Notice of Inquiry. ARRL said that the ANSI-IEEE standards were not properly delineated and not a proper basis for evaluating communications facilities.

"The Commissions handling of this proceeding, "the League said, "is not conductive to a fair determination of which RF exposure standard, if any, should replace the 1982 ANSI standard, on which most of the current communications systems in operation in the United States are based."

The League said that an FCC Report and Order in 1987 which concluded that amateur stations should be exempted from such RF exposure guidelines, because amateur stations operate only intermittently, and at low power levels, still applies. Only rarely, the League said, would amateur stations exceed even the proposed, more stringent 1992 ANSI/IEEE standard.

(Ed: Investigations of RFI hazards date back to 1960, when the American Standards Association approved a Radiation Hazards Standards project under the co-sponsorship of the Department of the Navy and the Institute of Electrical and Electronics Engineers. My recollection id that, originally, the program was to investigate possible detonation of ordnance due to RF [Project HERO - Hazards of Electromagnetic Radiation to Ordnance]. More recently [circa 1980] much research has been undertaken on human exposure in the frequency range 0 to 300 GHz.)

The Domino Effect

When the FCC acted on P.R. Docket 92-389 it set February 11, 1994 as the date to revise Part 97 Regulations to ban all relay devices from the band segment 222.0 - 222.15 MHz. As a result, the Southern California 220 MHz Spectrum Management Association (220-SMA) adopted the following band plan at its January 22nd meeting.

222.00 - 222.05 MHz	EME/CW/SSB/ACSB/AM
222.06 - 222.08	FM Voice Simplex
222.10	SSB Calling Frequency
222.12	FM Simplex
222.14	Digital (non-Aux Link)
222.16 - 223.38	Duplex Pair inputs
223.40 - 223.42	FM Voice Simplex
223.54 - 223.70	Digital
223.72 - 223.74	Aux. Link/Control
223.76 - 224.98	Duplex pair outputs

In voting on this revision the 220-SMA was forced to displace two long established repeater systems that have operated below 222.150 MHz. Both the W6GAA and WA^ZRC repeaters are temporarily being forced off the air. The 220-SMA Frequency Board has said that it is working to clear inactive frequencies - if any exist - and that re-coordination is conducted in accord with a first in, first processed procedure.

American Radio Relay League Report

by John Swafford, W4HU

This ARRL Report provides a brief summary of information published in the ARRL Letter and other reports. The LETTER provides timely news of interest to active Radio Amateurs. Any League member may subscribe to the ARRL LETTER.

League and others apposed to 'instant operating' proposal.

The ARRL has told the FCC that virtually every individual and group who commented on a Commission proposal for instant operating privileges for new amateurs agreed that the idea is a bad one, and urged that the proposal be abandoned.

In reply comments to the FCC on its proposal, in PR Docket 93-267, the ARRL said that "almost without exception," those who had commented -- 77 of them -- agreed with the League that the idea should be shelved in favor of electronic filing of license applications with the FCC.

The ARRL said that the mechanisms for such electronic filing of Form 610s "cannot be more than a few months away at worst."

Plan would invite abuse.

The League said that the FCC plan would invite abuse because, among other reasons, "The Commission itself suffers an inability to stem the tide of unlicensed operators in any radio service, because of limited enforcement resources."

The Commission was "inviting abuse" by proposing that unlicensed persons choose a call sign and go on the air without an FCC-issued license, suggesting that anyone wanting to use amateur frequencies could, under the FCC proposal, simply concoct a call sign without ever taking an examination or submitting a Form 610 to the FCC.

The ARRL said that two groups the FCC used as examples of temporary operating authority the Marine Radio Service and the Private Land Mobile Radio Service -- each "suffers a severe
problem with unlicensed, not to mention undisciplined, operation."

In response to a counterproposal by the W5YI-VEC, that the FCC's plan be modified to avoid abuse by having volunteer examiners assign temporary call signs from blocks allocated to them by the FCC (instead of a more random assignment scheme proposed by the FCC), the League said this would be an unbearable burden and responsibility on the VEs.

The League said that, at any rate, the Communications Act gives no basis for the FCC to delegate its authority to assign call signs, including determining a licensee's basic qualifications, which VEs would have no way of doing.

Would not reduce inquires.

The ARRL, in its reply comments, observed that although one rationale for the Commission's proposal was that it would reduce telephone calls to the FCC from people awaiting their first license, on the contrary, the proposal would probably result in more calls -- from amateurs inquiring about the legitimacy of temporary call signs they heard on the amateur bands.

The League once again asked that the proceeding be terminated in favor of electronic filing as soon as that is feasible, saying it stands by its position that operating authority must stem directly from the FCC and that it would be a serious mistake to allow this federal status to be diluted in the interest of some short-term expedient.

Continued on next page
AUTO-CALL

US, Russia give shuttle last-minute lift, agree to reciprocal, 3rd party privileges.

Russian and American amateurs aboard last week's space shuttle were able to carry out some of their operating plans only thanks to a last-minute pact between their two countries, who finalized temporary third party and reciprocal operating agreements just after the shuttle lifted off.

On February 3 the US Department of State and the Russian Ministry of Post and Telecommunications each approved the temporary arrangements, which allowed cosmonaut Sergei Krikalve, U5MIR, to contact, on February 6, the House of Science and Technology for Youth, in Moscow.

The contact was retransmitted in Russia on HF and VHF, according to the ARRL SAREX Working Group.

After the two countries approved the arrangements, it still was necessary to obtain a Special Temporary Authorization from the FCC (since operating from the shuttle is viewed the same as operating from US soil). The ARRL contacted the FCC's Personal Radio Branch, and the STA was granted on February 4.

Permanent reciprocal operating and third party agreements between the US and Russia have been in negotiations for several years.

Krikalev's school contact was the first by a cosmonaut from a US space shuttle. Russian coordinators for the event were Leo Labutin, UA3CR, and Valery Agabekov, UA6HZ. During the contact, Aleksandr Kaleri, U8MIR spoke to Krikalev from the school, and several other cosmonauts were on hand.

Six Russian students were able to ask questions of the shuttle astronauts.

In addition to schools contacted, the shuttle's robot packet station had logged nearly 2000 contacts as of February 7.

The Associated Press reported this story on Friday evening, February 4, noting that failure to obtain the agreements could have rendered illegal not only Krikalex's contact with the Moscow school but also an amateur-band contact between him and the Russian Mir space station.

The US continues to pursue permanent reciprocal operating and third party agreements with Russia and hopes to conclude them with a signing ceremony later this month in Washington, the State Department said in announcing the temporary shuttle agreements.

US astronauts aboard the shuttle were Charles Bolden, KE4IQB, and Ronald Sega, KC5ETH.

GA. Bill Would Outlaw Restrictive Covenants.

A bill introduced in the Georgia legislature that would eliminate the effect of restrictive property covenants on amateurs is believed to be the first of its kind, according to ARRL Georgia Section Manager Him Altman, N4UCK.

The bill, H.B. 1134, would prevent all new and renewed covenants from regulating, controlling, or restricting antennas owned and operated by licensed amateurs in the state.

Altman said that, in Georgia, all restrictive covenants have a life of 20 years, but can be renewed, This law, in banning new and renewed covenants, would leave existing covenants in place until their natural expiration, and prevent new ones.

Vanity Call Sign Extension Sought.

The ARRL has requested an extension of the comment deadline on an FCC proposal to establish a "vanity" call sign system.

The FCC's Notice of Proposed Rule Making, in PR Docket 93-305, was released December 29, 1993, with a comment deadline of March 7, 1994.

The League immediately published the NPRM, in its entirety, in February 1994 QST, asking members to make their views on the matter known to their directors.

In its request for an extension of time for comments, until April 21, 1994, the ARRL said that enabling amateurs to choose a call sign was a great opportunity and a "difficult administrative process for the Commission.

The allocation of a scarce resource, such as preferred call signs, raises distinct issues of fairness," the League said.

"Of particular concern is the establishment of a system of priorities for applicants for special call signs," the League said.

The League also said that the March 7 comment deadline simply did not allow enough time for ARRL members to express their views on the proposal and for the ARRL board to then formulate a position, and that legislation pending in the Congress could affect the way by which the FCC could charge fees for call sign requests.

Briefs.

- o Beginning March 1 the FCC will accept only the new version of its Form 610, as explained in February and March QST "Exam Info." The current ARRL-VEC newsletter VE Express, includes a full-size version of the new Form 610, and the ARRL-VEC has sent bulk quantities of the new form to all of its 650-plus "field stocked" VE teams, recommending that they begin using the new form on February 12, to allow sufficient turnaround time. Copies of the new 610 form are available for an SASE from ARRL Headquarters.
- o Contest operators once again will have the chance to swap lies about their QSO rates at the 2nd Annual Dayton Contest Dinner. It's the Saturday evening of the HamVention, April 30, 1994, at 6:30 PM at the Stouffer Center Plaza Hotel. Cost is \$25 per person and reservation deadline is April 10, 1994. Send check and SASE to North Coast Contesters Dayton Dinner, PO Box 59, New Bedford PA 16140.
- o On January 15 Ian Suart, GM4AUP, was installed as the 60th president of the Radio Society of Great Britain, succeeding Peter Chadwick, G3RZP. The new RSGB executive vice president is Clive Trotman, GW4YKL. The RSGB said that "although the EVP frequently becomes president for the following year, this is not decided until the autumn."
- o On January 26 the FCC granted the ARRL-VEC an extension of time to provide financial information concerning reimbursement arrangements for volunteer examiners. Last fall the FCC asked all VECs to provide such information for 1993, with a deadline of the end of January. The ARRL said that its auditing firm will not complete its work on the League's 1993 finances until sometime in March, and the ARRL wished to wait until the audit is complete.
 - The League said it assumed that the other VECs would be given the same accommodation. The FCC extended the deadline to March 31, 1994.
- o Russia has reserved new call sign blocks as follows: R1MVA-R1MVZ for Malyj Vysotskij Island; R1FJA-R1FJZ for Franz Josef Land; and R1ANA-R1ANZ for Antarctica. These replace the 4J/4K call signs previously used, which are no longer available to Russia. The new call signs may not immediately be put into use.
- o Here's a list of countries who joined the International Telecommunication Union in 1993: Czech Republic; Georgia; Slovakia; Kazakhstan; Micronesia; The Former Yugoslav Republic of Macedonia; Turkmenistan, Eritrea; Andorra. The ITU now has 182 members.

DX DX DX

By John Kanode, N4MM NEW PORTABLE RULE IN RUSSIA

A recent new ruling from the Ministry of Communication allows Russian amateurs to operate portable without special arrangements, which in the past, required significant paperwork. A Russian amateur may now sign "his call/call area" in which he is operating, if it is not his home call area. ie, UA1AA/0, RAIAA/3. This is similar to the policy of the USA. Operating a club or friend's station is now fully legal with one's own call (in the past it was a very gray area. Thanks go to Larry Agabekov, UA6HZ and the Union of Amateurs of Russia for accomplishing this change. Thanks to NT2X for this info.

APPROVED OPERATIONS

Call		Operations beginning			
3V8W		07/17/93 CW only 7,14,18,21MHz			
8R1/KD4GMV		01/11/94			
8R1/KK4WW.		01/11/94			
9M2/DK7PE		05/17/93			
A35CW		01/06/94			
FS/W2QM		12/01/93			
H44/DK7PE		. 12/13/93			
ZV0AGN		. 01/01/94			
***************************************	DANDEDAGANA				
UPCOMING	DXPEDITIONS				
Banaba Island	T33CS T33KK	. March 27-April 5			
Cambodia	XU0HW XU9HA	. May 5-19			
Zambia	9J2TM 9J2LA	. March 14-April 6			
Ghana	9G by XT2BW	. Feb-April			
Kerguelen	FT5XJ	. Now to July			
Svalbard	JW5EBA	. Jan-June			

DX DX DX - Continued from page 13

UPCOMING DX CONTESTS

Holy Land DX Contest	April 2-3
Japan International DX Contest CW	April 8-10
DXYL-NAYL Contest CW	April 13-15
SARTG World Wide AMTOR Contest	April 16-17
Helvetia Contest	Apri3 23-24
DXYL-NAYL Contest Phone	April 27-29

TIDBITS

Republic of Chechenia 1CIAK. A station signing 1C1AK has shown up on the air operating from this former Soviet oblast (UA6P). This oblast has declared its independence for some time but has not been internationally recognized. The operator is Idras, ex RA6PN. At this time, there has been no petition filed with the DXAC for possible DXCC country status. Very little is known about this situation. A QSL route was given as 1C1AK, PO Box 1, Grozny, Republic of Chechenia 364052 via C.I.S.

The 1993 DXCC Yearbook is out and it is a first class publication for DXers. I have received many good comments about it. The staff at ARRL HQ who put it together deserve a lot of praise and thanks. If your were an active participant in any of the DXCC Programs between October 1, 1992 and September 30, 1993 you should have gotten one free in the mail, if not please call the DXCC Desk at ARRL HQ and let them know. If you were NOT active in that time frame but want a copy, please send \$5.00 to the DXCC Dept. at ARRL HQ and they will send you a copy.

QSLs for 1B/KU0J go via Igor Zdorov, 5980 Anna Ave, #308, Minneapolis, MN 55432. The callbook address is incorrect. This operation was from the Turkish Republic of Northern Cyprus. KR4M had sent a petition to the DXAC for possible DXCC country for this area but then sent a letter wanting to withdraw it. Later KR4M sent a second letter signing all rights to it over to KU0J. It is not clear, at this time, if KU0J is going to pursue with this petition or not.

At the recent NCDXA meeting, Fred, K3Z0 gave a report on his recent trip to Thailand, where he operated HS0ZAR. He tried to get permission to operate 80 meters but it did not occur. He did a fair amount of operating on 40 meters and gave many a Zone 26 QSO on 40. I was one of the lucky ones to work him there. He said he might be going back in September of this year.

The latest report on the operators from 3Y0PI is that they are off the island and are now on the South Shetlands awaiting good weather so they can fly home. They made over 60,000 QSO's and conducted one of the best run DXpeditions that I can remember. I got them on all bands except 160. A first class operation. They had lots of trouble with the extreme weather, antennas breaking, generators getting buried in five foot snow storms, getting off the island safely. If you think the weather around here has been bad, try to picture yourself down there. If I ever plan to do a DXpedition, you can bet it will be in a warm spot.

ELMER'S CORNER

By Paul Wilkins, AB4CY
The Piezoelectric Crystal

There are materials both mineral and plastic that produce an electric charge when squeezed, and change shape when an electric charge is placed across them. The Greek prefix "piezo" means to press. Quartz which is a crystaline mineral is the most common material used for its piezoelectric properties. When properly dimensioned it will "oscillate" mechanically at frequencies in the kilo to many megahertz range. If you ever looked inside a crystal case you will find that the crystal is mounted so that it can vibrate ever so slightly. Natural quartz which is mined in many parts of the world frequently includes impurities that affect its properties. World war two produced a tremendous demand for the emerging communications requirements and not long afterwards an inexpensive process for growing quarts crystals artifically was developed so that today we carry them around in our quartz watches, use them as time bases in computers, in the telephone system, the frequency standard in tranceivers, sync referencees in color TV's, etc.

Crystals have been used as sound pressure transducers in microphones, ear phones, and as vibration sensors in phonograph disc pickups, as well as for frequency control. The original frequency allocations of our ham bands was based on the use of crystals for stable carrier frequencies. If you had a single crystal (sometimes refered to as a "rock") that had a fundamental frequency of 3510 KHz on 80 meters, you could use its harmonics of 7020, 14,040, 21,060, and 28,080 to operate on 40, 20, 15, and 10 meters. That was when crystals were scarce and expensive and by spacing our band frequencies at harmonic intervals you could get a lot of mileage out of a single crystal.

Before todays frequency synthesizers, you were "rock-bound" and if you called CQ you would tune up and down as far as 50KHz from your frequency to listen for a reply. That's a far cry from today where you dont touch the frequency dial or the receiving station will lose you. Occasionally, after you workd most of the guys with crystals near yours, you could swap crystals with a friend and work another portion of the band.

Different faces of a quartz crystal have different characteristics. You can choose a "cut" that has very good temperature stability but not much output or another cut which ages slowly with use or another that has a lot of output at some sacrifice in stability. If you overdrive a crystal you can crack it due to excessive vibration. This happened a lot in the old 6L6 tube oscillator stage only rigs. It was natural to want to hype the power, but sometimes it ended in disaster. Sometimes you could rescue a piece of a crystal by grinding it yourself with a flat piece of glass and some Bon-

Ami!

The crystal has a very high mechanical "Q" which means it has a very narrow bandwidth. The original crystal filters used in recievers were cut to 455KHz (the IF frequency) to narrow the reciever bandwidth and cut down on the QRM and noise. They were mostly useful on CW because the AM stations needed a couple of Khz to pass the voice frequency band. Today, "lattice" crystal networks are used as sideband filters in SSB equipment.

The original WWV frequency standards were set by quartz crystals that were very carefully aged and buried in a pit at a constant temperature out at the original WWV site in Beltsville. WWVdidnt move to Boulder until the 1950's. They used to say that if anybody went into the thirty five foot deep crystal pit for maintenance, the crystal frequency would change due to body heat and it took weeks to restabilize.

You can nudge a crystal a little in frequency by adding a series reactance. This is what a VXO does, but the real value of the crystal has been that it opened up a whole world of possibilities that didn't exist before. Next time you see one, say thanks.

1994 ANNUAL SPRING BANQUET

FOR ALL GREATER WASHINGTON AREA RADIO AMATEURS

SPONSORED BY THE FOUNDATION FOR AMATEUR RADIO, LOCAL QCWA CHAPTERS, SOWP CHAPTER TEN, AND THE DEPARTMENT OF STATE AND VOICE OF AMERICA ARCS

SATURDAY APRIL 23, 1994

RAMADA HOTEL, TYSONS CORNER, VIRGINIA (INTERSECTION OF ROUTE 7 AND 495 BELTWAY)

PRINCIPAL SPEAKER: RICHARD C. KIRBY, WØLCT/HB9BOA (DIRECTOR, RADIOCOMMUNICATION BUREAU, INTERNATIONAL TELECOMMUNICATION UNION, GENEVA)

MENU: Grilled Chicken with Dijonnaise sauce

Social Hour: 6:30 p.m.

Dinner: 7:30 p.m.

\$24 PER PERSON (\$25 at door)

RESERVATION FORM BELOW

Spring Banquet, April 23, 1994 For all Greater Washington area Radio Amateurs

Enclosed i	s \$	for reservations at \$24 each
		Call
		Call(s)
Addres	s	
		StateZIP
Make chec	ks payable	to Foundation for Amateur Radio. Mail to
Jim Wilcox	, K4JAP,	3442 Surrey Lane, Falls Church VA 22042-3536
AC 394		Pick up your ticket(s) at the door

PUBLIC INFORMATION COORDINATOR MARYLAND/DC SECTION

Melvin J. Morenz N3EKZ 416 Brooks Court Glen Burnie, MD 21060-7616

Voice: (410) 760-9426
Packet: N3EKZ @ WB3V.MD.USA.NA

PUBLIC INFORMATION OFFICER APPOINTMENTS

Congratulations to Leo J. Boberschmidt, KA3TGY for accepting his new appointment of PIO for the Rock Creek Amateur Radio Association (RCARA). Leo is a very active person both on the radio and in many other aspects of the hobby. In addition to accepting the PIO appointment for RCARA, he is also the PIO for the Capital City Amateur Radio Society, Secretary and Program Chairman for the Rock Creek Amateur Radio Association, and President of the National Capitol DX Association.

Some of Leo's other interests are: Dxing, packet radio, and putting on ham radio demonstrations. Last February he was on a Dxpedition to Bermuda/VP9. He is planning a special event operation on "Founders Day", May 7th, with RCARA in association with the Centennial for the Town of Kensington, MD. Please help Leo and his group celebrate the centennial by sending him a packet message or contacting him on HF. Check packet messages for details. He is also interested in island chasing for the Islands on the Air (IOTA) program.

To say the least, Leo is "involved, and loves amateur radio". The Maryland/DC Section staff takes pride in adding this valuable asset to the Field Station Appointment of PIO where we know he will serve well.

The Maryland/DC Staff also welcomes **Bruce G. Colburn, Sr., N3BWF** as the new PIO for the Maryland Mobileers ARC. Bruce currently writes the club article for Auto-Call & has past experience working in the Public Affairs Office as a Photo-Journalist in the United States Marine Corps Reserves.

IS "LURKING" ONE OF YOUR VALUED TRAITS?

If you have been on one of the area repeaters lately you will have no doubt heard someone remark: "Hey, I haven't heard you in a long time!", and the response goes something like - "Oh, I am always here, I am usually just LURKING in the background." It is obvious that there are several acting PIOs who go about their daily business being just another one of those unsung heros, just lurking behind the scenes and are not being officially recognized.

It is a good trait to have and one that is needed at times. The causes for "PIO LURKING" are numerous and include reasons such as "Oh, I've always done it", or "No one else will do it so I guess it is up to me if it is going to get done"! Another one may be that since Bill Howard, WB3V has assumed the duties of Section Manager for the MDC Section, the slate was considered clean and the

organization is being rebuilt. You could, therefore, just be a PIO identified under the previous regime and are just not on the new list of PIOs.

If you know of anyone, or you are the individual performing the PIO function for your club and has not submitted an updated FSD-187 "Field Station Appointment" form to me since August 1993, see your club officials, myself, or any ARRL Section Official via letter, phone or packet to obtain a blank form. Look elsewhere here in AUTO-CALL or in the "Section News" articles of any recent QST Magazine on how to contact the Maryland/DC ARRL Officials.

The Field Station Appointment form is used for all appointments and once completed it may be given to any League Official for action, however, a faster response may be received if it is given to the official responsible for the appointment, i.e. Official Emergency Station (OES) to the Section Emergency Coordinator (SEC) via your Emergency Coordinator (EC), Official Relay Station (ORS) and Official Bulletin Stations to the Section Traffic Manager (STM), etc.

One of my goals is to have an appointed PIO in each of the ARRL Affiliated clubs within the Maryland/DC Section. Speaking of affiliated clubs, please remember, just being an ARRL Affiliated Club should not be you and your clubs end goal. Granted, there are benefits associated with just being an "ARRL Affiliated Club".

There is another elite group of clubs where your club could be aiming and setting their sights on and that is the designation of "Special Service Club (SSC)", which has it's own set of additional benefits. If your club is a "CAN DO", "WILL DO" and/or a "DOES DO" club, please consider the possibilities of becoming one of the elite in your area. Review what your club is currently doing, you may be surprised just how close your club is to meeting the qualifications. Objectively compare your clubs activities to the qualifications required to be an SSC, and if qualified, approach your club officers at the next meeting and see if you can make it happen.

If your club is within the MDC Section and is not affiliated with the ARRL or is not a Special Services Club, contact me or the MDC ARRL Affiliated Club Coordinator (ACC), Tony Young, WA3YLO at your earliest convenience.

ACT NOW, DO IT TODAY! VIDEO PROMO'S AVAILABLE

Public Information Officers may request from ARRL Headquarters a videotape of a new set of public service announcements. They are available in 1", 3/4" and VHS formats.

The tapes feature Astronaut Linda Godwin, N5RAX, and Nobel Prize-winning Physicist Dr Joe Taylor, K1JT, of Princeton University.

The 5 full-color PSAs include testimonials from Godwin and Taylor in varying lengths for both commercial and public-access television use. Ms Godwin's spots are in 60, 30 and 10 second lengths, and Dr. Taylor's are 60 and 30 seconds in length.

Those who respond to the "800" number offered at the end of each spot are provided with information on how to become an Amateur Radio operator. Local radio clubs that distribute the spots are permitted to drop-in their own local identification should they so desire.

A copy of the VHS format only is available for MDC PIO use if they have a contact with a local broadcaster or cable operator desiring to show these spots. Please contact me and we will determine the best way to get it to you. The other formats may be obtained from ARRL. Please note that these PSA spots are just that, TV announcements advertising Amateur Radio, and are not designed for a feature presentation at club meetings.

SECTION-WIDE SPEAKERS BUREAU

A section-wide Speakers Bureau is being assembled to provide knowledgeable and effective speakers who are available to address Amateur Radio Club meetings as well as community groups about Amateur Radio and their area of interest/expertise (they should be considered an expert in their field and topics in various fields should be considered).

All appointed PIOs, individuals that are acting as a PIO, and activities chairpersons are requested to maintain a current list of speakers who are willing to make presentations at their club meetings and are also available to provide this same service to other clubs within the section. If you are just an individual interested on being added to this list please send in your information directly as indicated below.

The information you should submit about each speaker should include, but is not limited to, the following:

- 1. name/call
- 2. address where correspondence may be sent
- 3. phone numbers (home/work)
- 4. packet address (if packet capable)
- 5. title of presentation
- 6. synopsis of presentation
- 7. areas where the speaker is willing to travel
- 8. any appropriate comments

Our Assistant Section Manager, Jerry Gavin, NU3D will maintain the master list of speakers within the section. Once your list of information has been compiled please forward it to:

MDC Assistant Section Manager Jerry Gavin NU3D 7801 Overhill Road Glen Burnie, MD 21060

Phone: (410) 761-1423

Packet: NU3D @ WB3V.MD.USA.NA

Any additional speakers or changes to information on your list of speakers should also be sent to Jerry so that the master list will remain current. Once the list is compiled, your clubs activities chairperson will have a much easier job. All that will be required to enhance your meetings will be to refer to this valuable resource of speakers, select the topic desired, contact the speaker and make the necessary arrangements for an informative and enjoyable presentation and meeting. All it takes is a little time to compile what you already have, identify any additional information and send it in.

Thanks in advance for your input to help generate and maintain this valuable resource list.

TWO ARRL NATIONAL EXAM DAYS SET FOR '94

The ARRL has decided to set two dates as National Exam Days in 1994. One in the spring and one in the fall. The spring date is May 14th and the fall date is October 29th. These dates are conducive to spring and fall educational cycles, while avoiding most holidays and Amateur Radio events.

REMEMBER - There is a new Form 610 dated November 1993. As of March 1, 1994, this is the only form that the FCC will accept for processing. None of the seven prior valid Form 610s will be accepted by the FCC beginning March 1. Therefore, be sure that your VE Team only uses or accepts the new Form 610s.

CALL FOR NOMINATIONS - 1994 Philip J. McGan Memorial Silver Antenna Award

AUTO-CALL readers may know hams who are eligible for nomination for the third annual Philip J. McGan Memorial Silver Antenna Award, given to the amateur who best exemplifies the volunteer efforts of Phil McGan, WA2MBQ (SK) for public relations on behalf of Amateur Radio. The award is given each year by ARRL and the New Hampshire Amateur Radio Association.

- 1. Nominees: Nominee must be an individual (not group) who is a full ARRL member in good standing at the time of nomination. The nominee must not be compensated for PR work involving Amateur Radio, and may not be a current officer, director, vice director of paid staff member or member of the PR committee.
- 2. Selection Criteria: The winner will demonstrate volunteer public relations success on behalf of Amateur Radio at the local, state or national levels, and will live up to the high standard of achievement exemplified by Philip J. McGan.
- 3. Nominations: Anyone may make a nomination. Nominations must be on an official entry form available from ARRL Headquarters. The nomination will include a written summation whenever possible.
- 4. Deadline: Nominations must be received in Newington by 5 PM May 31, 1994. Nominations arriving after the deadline or without an entry form cannot be considered.
- 5. Selection: Eligible nominations will be screened by a five member committee of Amateur Radio operators knowledgeable about public relations, which will forward its recommendation to the Volunteer Resources Committee of the ARRL Board of Directors. The Board will make a final determination at its July meeting and the winner will be notified shortly thereafter.
- 6. Entry Forms: To obtain a form, call ARRL HQ at 203-666-1541, ext. 328, send e-mail to smansfie@arrl.org or MCI mail at 519-3279. Ask for an official Philip J. McGan Memorial Silver Antenna award entry form. Be sure completed entries arrive at ARRL Headquarters by May 31, 1994.

Will It Ever End?

There is little question that winter has come to the national capital area. The ice/sleet and snow storms of February 10-11 and march 2-3 reeked their share of havoc on an already winter weary mid-Atlantic population. The SKYWARN net was active for 18 hours on February 10-11 and for 28 hours on march 2-3.

The initial guidance indicated that there was enough moisture in each storm to produce potentially up to two feet of snow. A question remained throughout each event whether the precipitation would fall in the form of freezing rain (where rain hits the ground in liquid form and then freezes on contact), sleet (where the rain forms into frozen ice pellets and hits the ground in a solid form) or snow (that white fluffy stuff!).

For both weather events, per the SKYWARN preplan, liaisons from the subnets (southern Shenandoah, northern Shenandoah, Hagerstown, Anne Arundel, southern Maryland, and Charlottesville) were prealerted to check into the Northern Virginia Traffic Net (NVTN) at 7:30 p.m. on 147.300 MHz on the night before the onset of the weather event. The National Capital ARES Council pagers were also activated. The winter weather warning was read on the NVTN and coordination for the impending storm took place at the end of the net. Very effective coordination was made to link the moorefield, WV and Hayes Mills, PA repeaters into 147.300 to be able to communicate directly with Allegheny and Garrett countiesin Maryland and with Hardy, Hampshire, Grant, Mineral, and Pendleton counties in west Virginia. These links proved crucial because western Maryland and the eastern panhandle of West Virginia often get snow measured in feet and these areas are shielded, to a degree, from the NWS radar by the mountains. The repeater licensees, owners, and trustees are thanked for making the coordination, as well as Wes, WA4TSC, for permitting these repeaters to be linked for the duration of the severe weather events. It is hoped that these links will be reinstituted during future weather emergencies. Special thanks to N8XGH and KE3BA for helping to coordinate the west Virginia and Maryland links. Also special thanks to N30KI for giving reports throughout each event during the night hours as he traveled across Maryland and Virginia.

Numerous people assumed the role of net control including N80DZ, KD4TWR, KC4YGB, N0KYZ, NOAA, KC40CG, KD4KCT, N3PDK, N3LDY, K5RJ, N4YYH, K4FHK, KC4YMP, KD4DGQ, N9EBJ, and KE4BUO. The reports that came in from the subnets were extremely important. Packet on 145.730 MHz was used extensively. The reports were printed out in hard copy as they were received at the NWS.

As expected by the forecasters, the storms affected the national capital area from over six inches of snow in Hagerstown, Maryland, to up to twenty eight inches of snow in the Shenandoah Valley, to eighteen inches in the eastern panhandle of West

Virginia, to five to six inches of sleet and ice in the

metropolitan area, to a horrendous ice storm in southern Maryland. There were some areas in southern Maryland and central Virginia that were without power for many days after each storm due to downed trees and power lines.

These turned out to be extremely dangerous storms and all net participants are thanked by the NWS for another outstanding job of severe weather spotting and reporting in an organized and professional manner.

One final thought. If your home, business and/or repeater were to lose power for a week, would you be able to easily and effectively operate on back-up power? This is a thought to ponder and to test during field day, when it is warm!

Dan KC40CG

TRAFFIC FUN

By Geri Sweeny, N4GHI

APRIL FOOL: Now that you have sent all your Irish friends a happy St Patrick's Day message, it's time to think Easter. It's really a delightful experience to pick up the phone and have someone deliver a cheery message to you. Get out your address book. Find a few friends you normally wouldn't call. Send them a message. It could be as simple as, "ARL Sixty (Wishing you the best of everything on) Easter". Or, you could create something unique. Sending an April Fool message might fall under this category. Keep it under 25 words. Affirm your friendship with a message.

ARRL NUMBERED RADIOGRAMS: And speaking of ARRL radiograms... They come prepared to help you state the simple, obvious things. Each numbered radiogram provides a complete thought. As the message is sent, from net to net, ARL (and a number) is sent. This saves a lot of time and enables you say a lot more. When the message is delivered, the traffic handler only needs to look at the list and translate. The number is spelled out as a word to avoid error and ARL always precedes it. When your message uses an ARL numbered radiogram, ARL is inserted in the preamble before the check (number of words in the message). An example of one of the most used ARRL numbered radiograms is: ARL FORTY SIX. That only takes 3 words to send: 'Greetings on your birthday and best wishes for many more to come.' When using packet, you can not be certain that the person on the PBBS on the other end will know the ARL numbered messages; and, keeping it short is not so necessary. Thus, it is often best to just type in the message as you would want it delivered.

A NEW ONE!: A new radiogram has just been added to this list. It's ARL sixty nine. The translation is: 'Welcome to the _____. We are glad to have you with us and hope you will enjoy the fun and fellowship of the organization'. Many groups, like the QCWA, OOTC, and SOWP, as well as non radio organizations (SSA, kiwanis), have traffic handlers who review their rosters and send out a radio message welcoming new members. Ted Sharp, K6UYK, in Hollywood, California, does that, and also welcomes new members to another of his interests - soaring (SSA). He promoted the new ARL message. Now, all you need do is say: 'ARL sixty nine QCWA'.

If anyone would like a copy of the ARRL Numbered Radiogram list, give me a call (703/360-3773), or send me a message on either packet (SP N4GHI @ WA3TAI), or one of our various local or section level nets.

VIRGINIA DIGITAL GROUP: Virginia initiated a new digital group about a year ago. It's aim is to help promote digital communications in Virginia. If you wish to join (VDG), send \$10.00 to Robert Kerby, W4BLD, PO Box 991, Waynesboro, VA 22980-0723. Information is disseminated with an excellent monthly newsletter.

MD/DC DIGITAL ORGANIZATION- DMARC: If you would like information on DMARC, send Tom, WA3TAI @ WA3TAI a message.

ARRL NTS DIGITAL POLICY: What is it and who is in charge? I'm not sure it's ever been defined. To give it some direction, 3 area directors were appointed by Rick Palm about 3 years ago. Rick Palm is the Director of Field Services (which includes NTS) at ARRL, Newington Headquarters. Our Eastern Area Coordinator appointee is Nick Zorn, N4SS. The 3 (Pacific, Central, and Eastern) Coordinators met in December of 93. They came to agreement among themselves on a long

Traffic Fun - Continued from page 22

range future plan which could slowly be implemented as NTS procedure. Rick Palm wrote up this plan. He then sent a copy to each of our 3 area chairman. When I questioned him about it on the phone, he said that if these 3 area chairmen can 'come to consensus', he will implement this plan. He further mentioned that while he wouldn't publish the plan in QST, he would put 'an announcement' of it in the March issue.

One would think that the merits of this plan should be considered by a broad range of NTS leadership, as the Digital Coordinators intended. Whether the plan is good, bad, or something in between, some discussion as to it's benefits should be allotted traffic handlers, before it's implementation, in order to make them feel part of the process, and to insure that informed volunteers can make it work. Section Traffic Managers, and Region Net Managers are being given 'requirements' (not just custody of) for digital activities of which they may have no control. Having received a copy of the plan's 'Action Items', I include them for your information:

"The following is a summary list of action items stemming from the Lake Limestone meeting, as developed by the group, and compiled by Rick Palm, K1CE."

- "1) Digital stations appointed by the Area Digital Coordinators will perform a liaison function to each Region Net as supplemental back-up to 'normal' functions. Digital stations should be 'ambimodal,' eg, capable of operation on HF AMTOR, VHF packet, CW and phone. Digital station certificates (specifying specific function assignment) will be presented to Digital stations by Area Digital Coordinator. (Assigned to: Area Digital Coordinators).
- 2) The above function shall be incorporated in the NTS Terms of Reference. (Assigned to: Rick Palm, K1CE).
- 3) A letter will be sent to Region Net Managers notifying them of the policy as outlined above. (Assigned to: Rick Palm, K1CE).
- 4) A letter will be sent to Section Traffic Managers calling their attention to the requirement that the NTS function on sections' packet bulletin boards must be managed by them, through Net Managers assigned to those functions, and Official Relay Stations who must be assigned to clear traffic daily. (Assigned to: Rick Palm, K1CE).
- 5) An inquiry (survey form) will be sent to Section Traffic Managers seeking information on their section's NTS-packet system; eg, a roster of such NTS-PBBS stations and ZIP codes supported by each. (Assigned to: Bud Thompson, N0IA).
 - 6) The roster shall be included in the ARRL Net Directory. (Assigned to: Rick Palm, K1CE).
- 7) A letter will be sent to Section Managers and Section Traffic Managers informing them of the developing traditional/digital NTS relationship, and seeking their support at the section level. The letter will address the need for greater levels of message originations to fuel the system, and promotion of the League's public service awards program. (Assigned to: Nick Zorn, N4SS; Rick Palm, K1CE).

- 8) A list of NTS HF scanning frequencies will be developed and published in the ARRL Net Directory. (Assigned to: Nick Zorn, N4SS, Rick Palm, K1CE).
- 9) PBBS software is to be incorporated on NTS-cooperative boards to prompt/teach users on how to originate/send a message in radiogram format. A separate, stand-alone program will also be developed for use 'off-line', to accomplish the same function. (Assigned to: Bud Thompson, N0IA).
- 10) Basic NTS educational/motivational articles need to be published in QST to promote/fuel the system. The focus must be on getting new hams involved, and more messages originated. (Assigned to: Rick Palm, K1CE).
- 11) The Health-and-welfare traffic handling policy must be promulgated more widely. (Assigned to: Rick Palm, K1CE).
- 12) BBS software writers will be encouraged to incorporate a priority schedule for forwarding of different types of messages. (Assigned to: Bud Thompson, N0IA).

Long Range Planning

- 13) A report is to be developed on the possibilities of incorporating a public service message system on the Phase III-D satellite project. (Assigned to: Tom Comstock, N5TC).
- 14) An investigation is to be undertaken to look at the possibilities of land-line modem access to Amateur Radio MBO's and consequent enhancement of our public service capabilities. (Assigned to: Bud Thompson, N0IA, in consultation with Hank Oredson, WORLI)."

The worrisome aspect of this plan is that one person, Rick Palm, now feels that only 'consensus of the 3 area chairmen' is needed. (phone conversation on February 18). While these 'action items' may then be modified a bit, why not include those who will be involved in the implementation of this plan? The plan, as finalized, should be published in QST, inviting comments. Further, Section Managers (the only people elected by you) and their appointed STM's, should be surveyed as to how it could affect their section. And PBBS's, currently executing good NTS procedures (like WA3TAI), should be asked to comment before these items are implemented. What do you think?

ELECTRONIC ONE-STOP

Crofton Station Shopping Center Rt. 424 & Rt. 3 - Crofton, Maryland

New Home Of The

"CELLULAR PHONE STORE"

721-4499

Bob Saslaw K3ZSB Car Phones • Transportables • Hand Helds
Cellular Telephones And Accessories
Cellular Phone Numbers Activated
And Now The Areas Largest Selection Of
Pagers And Pager Accessories
Convert Your Pager To Our Service

Washington Local (301) 261-3002 Crofton - Annapolis (410) 721-4499

KENT ISLAND Amateur Radio Club HAMFEST SATURDAY, MAY 7

0800 - 1400

\$4 Donation

INDOOR TABLES
EQUIPMENT TESTS
FELLOWSHIP

TALK-IN 146.94/146.34

Tailgate Free

Location: VFW; VFW Rd
Behind SLEEP INN

BREAKFAST & LUNCH AVAILABLE

SAMUEL F.B. MORSE SPECIAL EVENT STATION

The Bay Area Amateur Radio Society, in cooperation with the Anne Arundel County Historical Society, will operate a special event Amateur Radio Station to commemorate the 150th anniversary of the telegraph message "What Hath God Wrought" transmitted on an experimental line from Washington, D.C. to Baltimore, MD.

The special event station will be using the call KM3I, at 13:00 UTC until 20:00 UTC, on May 21th, 1994, from the Baltimore/Washington area. Members of the Bay Area Amateur Radio Society will commemorate this event on one or more of the following CW frequencies:

7.125 MHz, 14.125 MHz, 21.125 MHz, 28.125 MHz.

A special 8.5" x 11" commemorative certificate will be offered for an amateur contact (QSO). Accurate shortwave reception reports will be accepted in lieu of a two-way contact for non-hams.

Amateurs send your QSL card, shortwave listeners send details of the QSO, along with a large 8.5" x 11" SASE, to: Greg Ocfemia, Bay Area Amateur Radio Society, 419 Brooks Ct., Glen Burnie, MD 21061 for this special award.



Antietam Radio Association W3CWC
P.O. Box 52 HAGERSTOWN MD 21741
Presents the 1994 Edition

Great Hagerstown Hamfest Sunday May 22, 1994

Hagerstown Jr. College Athletic & Recreation Center

TABLES INSIDE THE GIANT ARCC ARENA

6' Tables inside the ARCC are \$ 15 each in advance if paid by check or cash. If charged to MASTERCARD or VISA, tables are \$ 1 extra. Tables the day of the fest are \$ 20 each - CASH. RESERVE YOUR TABLES EARLY AND SAVE!

There will be a limited number of indoor electrical hookups. Vendors will be responsible for their own electrical cords. Commercial vendors must have proper tax / license_certificates available.

FOR TABLE RESERVATIONS contact Page Pyne or Fred Bailey at (301) 714 - 0688 or write: ANTIETAM RADIO ASSOCIATION, P.O. Box 52, Hagerstown, MD 21741. ARA will return acknowledge with vendor tickets for all paid tables reserved by MAY 10, 1994.

Hagerstown is conveniently located at the intersection of I-81 & I-70, also at the intersection of U.S. 11 & U.S. 40. Exit 32B from I-70 provides easy access to HJC. Exit 32B exits unto U.S. 40. Travel Route 40, turn right at Edgewood Rd (Home Federal Bank) and its 1.8 miles to the college. Turn left into HJC and you will be directed to the huge Athletic & Recreation Center.

ADMISSION

GENERAL ADMISSION \$ 5.00 EACH Children under 12 admitted FREE

HAMFEST HOURS

Gates open to inside vendors, tailgaters at 6 AM.
General Public Admitted at 8 AM.

Hamfest ends about 3:30 P.M.

NEW THIS YEAR IS OUR QSL CONTEST -Bring yours - best QSL wins a prize!

TALK-IN

The Hagerstown 146.34 / 146.94 repeater will be used as talk-in for this hamfest.

TAILGATING

A spacious outdoor tailgating area (on blacktop) will again be available near the Recreation Center. SPACES will be rented at \$ 5.00 each. Each tailgate sellor must also pay general admission. Tailgate spaces will be rented on a first come - first served basis. No advance reservations will be accepted for tailgate spaces.

VE EXAMS

VE EXAMS will be given again this year by the MOUNTAIN ARC - VEC. PRE-REGISTRATION is strongly recommended as we have a limited seating capacity. (9 AM start time) Exam information is available from PAT KQ8E at (304) 289-3576 or GAYLORD W3DFW at (301) 724-0674.

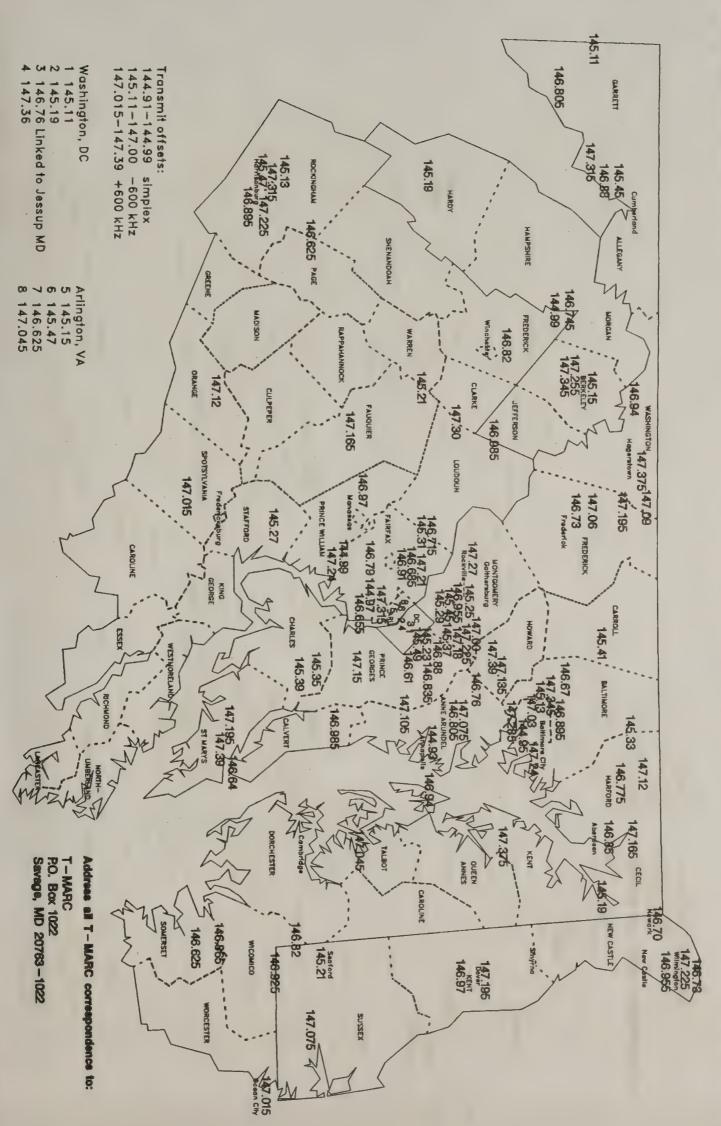
The Antietam Radio Association is an ARRL affiliated Special Services Club. We are also a member club of the Foundation for Amateur Radio. In addition to the Great Hagerstown Hamfest, ARA sponsors the annual Maryland - DC QSO Party.

Make your plans now to be in scenic Western Maryland for the 1994 GREAT HAGERSTOWN HAMFEST. Come see why others come rain or shine to this event. Information on Washington County Tourism, including restaurants & lodging is available from the Route 40 Tourism Information Center, Dual Highway, Hagerstown, MD 21740 or call them at (301) 791 - 3130 or the event line at (301) 791-3131.

144-148 MHz Repeaters

T-MARC Coordination Area

© 1994 WA2WDT



222-225 MHz Repeaters

T-MARC Coordination Area

© 1994 WA2WDT

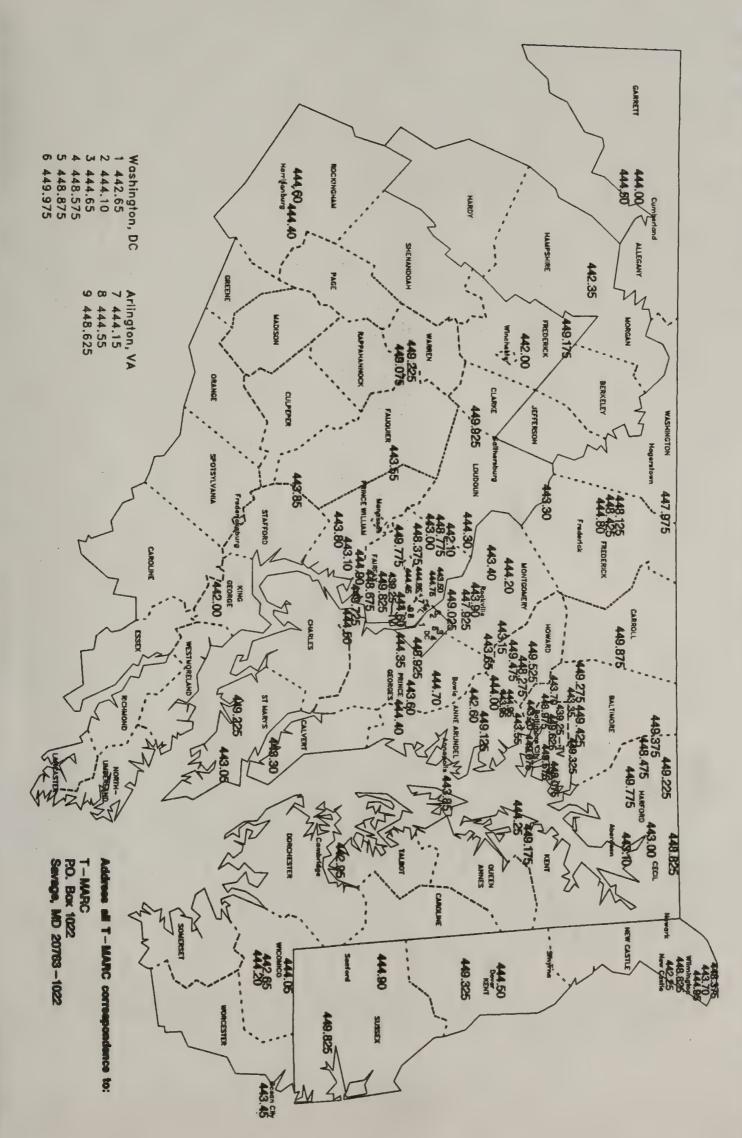


NOTE: Not to be used for coordination. Some private repeaters are not shown.

442-450 MHz Repeaters

T-MARC Coordination Area

© 1994 WA2WDT



29, 52, 902, and 1240 MHz Repeaters

T-MARC Coordination Area

© 1994 WA2WDT



TRAINING CLASSES

General Information

	Ocheral Information	
Alexandria Radio Club		
Anne Arundel Radio Club	Tony Young - WA3YLO	(301)262-1917
Arlington Amateur Radio Club	Fred Bardsley - WD4DHW	(703)533-0372
Antietam Radio Association	Robert Long - KD3JK	(301)824-5132
Baltimore Radio Amateur TV Societ	Joe Chidester - W3SHZ	(410)602-0353
Fauquier Amateur Radio Club	Neil Spokes - AB4YK	(703)364-3861
Frederick Amateur Radio Club	Steve Bauman - W3FOA	(301)662-4552
Herndon Repeater Group	Michael Weber - WB8RDN	(703)450-2304
Laurel Amateur Radio Club	Pud Reaver - W3DQI	(301)498-6293
MARAS	Larry Ziecheck - N3GKS	(301)984-6112
Maryland Mobileers ARC	John Baugus - N3JME	(301)551-3161
Montgomery Amateur Radio Club	Jane Rosenthal - AA3CQ	(301)762-6262
Mount Vemon Amateur Radio Club	John Forrest - WZ4A	(703)971-3905
NASA/Goddard Amateur Radio Club	Vikki Gigante - KA3PVS	(301)249-2609
Ole Virginia Hams ARC	John Fritsch - N4YOB	(703)791-5995
Pentagon Amateur Radio Club	David Boyd - K9MX	(703)659-6241
Rock Creek Amateur Radio Assn		
St. Mary's County ARA		(301)862-2214
Shenandoah Valley ARC	Dale Streyle - N2IKY	(703)888-8427
Southern Maryland ARC	Vic Curtis - WA3YUV	(301)888-1388
Southern Patuxent ARC		
Springfield Estates ARC	Will Schmitt - KD4CNX	(703)768-5709
Stafford Adult Education	Jerry Mullinix - AC4HK	(703)659-3905
Sterling Park Amateur Radio Club	Mark Johnson - WS3N	(703)430-3804
Tri-County Amateur Radio Club	John Creel - WB3GXW	(301)572-5124
Vienna Wireless Society	Paul Wilkins - AB4CY	(703)560-2779
Woodbridge Wireless, Inc	Loyd Davis - K8EI	(703)360-0248

FOUNDATION MEETING

The Foundation for Amateur Radio, Inc. meets at 8: p.m. on the second Wednesday of each month.

Visitors are always welcome

The next meeting will be on April 13 in Takoma Park, Maryland Columbia Union College Science Building Auditorium, Flower Avenue

(Take beltway exit 30 South on Colesville Road to Franklin Avenue, East on Franklin to Flower, South to the college)

Talk-in on 147.18

FOUNDATION FOR AMATEUR RADIO

VOLUNTEER EXAMINER COOPERATIVE

JOHN FORREST WZ4A 6111 BURNETT ST. ALEXANDRIA, VA, 22310 (703)971-3905

NOTICES:

- * EFFECTIVE JANUARY 1, 1994, THE MAXIMUM ALLOWABLE VEC REIMBURSEMENT FEE FOR AN AMATEUR EXAM HAS BEEN INCREASED TO \$5.75.
- * EFFECTIVE JULY 1, 1994, THE GENERAL CLASS WRITTEN EXAM QUESTION POOL (ELEMENT 3B) WILL CHANGE. EXAMS ADMINISTERED AFTER THAT DATE MUST USE THE NEW QUESTION POOL. BE SURE TO USE STUDY MATERIALS APPROPRIATE FOR THE QUESTION POOL IN USE.

SCHEDULE OF EXAMINATIONS

1994

APRIL 3, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (W5YI VEC) WALK-IN CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY) (301)773-2898 (EVENING)

APRIL 9, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN CONTACT: FRANK MACKEY N4GUS (703)455-1510

CUMBERLAND, MD - MOUNTAIN ARC (MOUNT. ARC VEC) WALK-IN CONTACT: LEO PATTERSON KQ8E (304)289-3576 GAY REMBOLD W3DFW (301)724-0674

HARRISONBURG, VA - MASSANUTTEN ARA (ARRL VEC) WALK-IN CONTACT: MARSHALL COOPER N4ZKH (703)856-8012 (6-9PM)

VEC - Continued from page 32

APRIL 9, 1994 (SATURDAY)

RICHMOND, VA (ARRL VEC)
CONTACT: RICK COOK (804)798-5048
INFO PROVIDED BY ARRL - NOT VERIFIED

APRIL 10, 1994 (SUNDAY)

VIRGINIA BEACH, VA - CHESAPEAKE DX ASSN (W5YI VEC) PRE-REGISTRATION DESIRABLE CONTACT: BILL VEREBELY KC4YX (804)424-4764

APRIL 16, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

APRIL 24, 1994 (SUNDAY)

HAGERSTOWN, MD - ANTIETAM RADIO ASSN ARC (ARRL VEC)
PRE-REGISTRATION REQUESTED
CONTACT: PAGE PYNE WA3EOP (301)714-0688 (DAY)
BOB LONG KD3JK (301)824-5132 (EVENING)

APRIL 26, 1994 (TUESDAY)

ANNAPOLIS, MD - MARYLAND MOBILEERS ARC (LAUREL VEC)
PRE-REGISTRATION REQUESTED - LIMITED WALK-INS
CONTACT: LOIS TURNER KA3VVQ (410)647-4178

APRIL 30, 1994 (SATURDAY)

WILLIAMSBURG, VA - WILLIAMSBURG ARC (ARRL VEC) WALK-IN CONTACT: ANDREW SWANSON WJ4X (804)253-2811

MAY 1, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (ARRL VEC) WALK-IN CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY) (301)773-2898 (EVENING)

ELKINS, WVA (MOUNT. ARC VEC) WALK-IN CONTACT: (304)637-0506

VEC - Continued from page 33 MAY 7, 1994 (SATURDAY)

STERLING, VA - HERNDON REPEATER GROUP (ARRL VEC) WALK-IN CONTACT: MIKE WEBER WB8RDN (703)450-2304 BETWEEN 7-9 PM

MAY 14, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN CONTACT: FRANK MACKEY N4GUS (703)455-1510

MAY 21, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

MAY 22, 1994 (SUNDAY)

ANTIETAM RADIO ASSN (GREATER HAGERSTOWN HAMFEST) (MOUNT ARC VEC) PRE-REGISTRATION REQUESTED CONTACT: LEO PATTERSON KQ8E (304)289-3576 GAY REMBOLD W3DFW (301)724-0674

MAY 25, 1994 (WEDNESDAY)

GLEN BURNIE, MD - MARYLAND MOBILEERS ARC (LAUREL VEC) PRE-REGISTRATION REQUESTED - LIMITED WALK-INS CONTACT: JERRY GAVIN NU3D (410)761-1423

MAY 28, 1994 (SATURDAY)

GLOUCESTER, VA - GLOUCESTER RADIO AMATEUR COLLEGE OF EXAMINERS (W5YI VEC) PRE-REGISTRATION DESIRABLE CONTACT: FRAN STERLING KD4UEY (804)693-2117

JUNE 4, 1994 (SUNDAY)

VIRGINIA BEACH, VA - VA BEACH ARC (ARRL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JUDY ROGERS KD4JMA (804)468-9166

Continued on next page
AUTO-CALL

Page 34

VEC - Continued from page 34
JUNE 5, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (W5YI VEC) WALK-IN CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY) (301)773-2898 (EVENING)

JUNE 11, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC) WALK-IN CONTACT: NANCY ALLEY NT3Z (410)761-7115 BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN CONTACT: FRANK MACKEY N4GUS (703)455-1510

CUMBERLAND, MD - MOUNTAIN ARC (MOUNT. ARC VEC) WALK-IN CONTACT: LEO PATTERSON KQ8E (304)289-3576
GAY REMBOLD W3DFW (301)724-0674

HARRISONBURG, VA - MASSANUTTEN ARA (ARRL VEC) WALK-IN CONTACT: MARSHALL COOPER N4ZKH (703)856-8012 (6-9PM)

RICHMOND, VA (ARRL VEC)
CONTACT: RICK COOK (804)798-5048
INFO PROVIDED BY ARRL - NOT VERIFIED

JUNE 18, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

JUNE 28, 1994 (TUESDAY)

ANNAPOLIS, MD - MARYLAND MOBILEERS ARC (LAUREL VEC)
PRE-REGISTRATION REQUESTED - LIMITED WALK-INS
CONTACT: LOIS TURNER KA3VVQ (410)647-4178

EXAM FEES:

- * CHECK FOR APPROPRIATE EXAM FEE. FEES AND MODES OF PAYMENT FOR INDIVIDUAL VECs AND EXAM TEAMS MAY VARY.
 - * ARRL VEC EXAMS COST \$5.75
 - * LAUREL VEC EXAMS ARE FREE
 - * MOUNTAIN VEC EXAMS ARE FREE
 - * W5YI VEC EXAMS COST \$5.75

BRING TO EXAM:

- * PICTURE IDENTIFICATION
- * COMPLETED FCC FORM 610 (MOST VE TEAMS WILL SUPPLY AT EXAM)
- * ORIGINAL AND A COPY OF CURRENT FCC AMATEUR RADIO LICENSE
 - * ORIGINALS AND COPIES OF ALL ACTIVE CERTIFICATES OF SUCCESSFUL COMPLETION OF PRIOR EXAMS
 - * EXAM FEE (CHECK OR CASH DEPENDING ON VE TEAM)

"GRANDFATHER" CREDIT FOR ELEMENT 3B (GENERAL WRITTEN):

* IF YOU PRESENTLY HOLD A TECHNICIAN CLASS LICENSE WHICH WAS FIRST ISSUED PRIOR TO MARCH 21, 1987, YOU MAY BE GRANDFATHERED FOR ELEMENT 3B (GENERAL CLASS WRITTEN EXAM) BY PRESENTING THE ORIGINAL AND A COPY OF THE LICENSE DATED PRIOR TO MARCH 21, 1987 TO THE VE TEAM. IT IS YOUR RESPONSIBILITY TO PROVE THAT YOU ARE ENTITLED TO GRANDFATHERING. DO NOT LOSE YOUR ORIGINAL LICENSE!

RULES FOR SUBMISSIONS TO THE FAR VOLUNTEER EXAMINER COOPERATIVE:

- 1. ALL SUBMISSIONS MUST BE IN WRITING
- 2. DATE AND DAY OF WEEK MUST BE SPECIFIED FOR EACH EXAM DATE
 - 3. POINT OF CONTACT AND PHONE NUMBER MUST BE SPECIFIED
 4. SPONSOR AND LOCATION MUST BE SPECIFIED
 - 5. VEC MUST BE SPECIFIED
 - 6. EXAM DATES UP TO 12 MONTHS IN ADVANCE WILL BE ACCEPTED



WE HAVE
MOVED TO
A NEW
LARGER
LOCATION!

Y'all Come!

Amateur Radio of Hagerstown has relocated to the North Village Shopping Center

Lots of FREE PARKING

Easy Access to Amateur Radio Interstate-70 West to Interstate-81
Follow Interstate-81 North to Exit 9.
Its just 0.6 miles along Maugan's Ave
(Towards McDonald's) to the
North Village Shopping Center
(301) 416-8079 N3HTN, Mgr.

NEW

"SPECIAL"

APRIL. MAY. JUNE

HAM RADIO OPERATORS ID BADGE

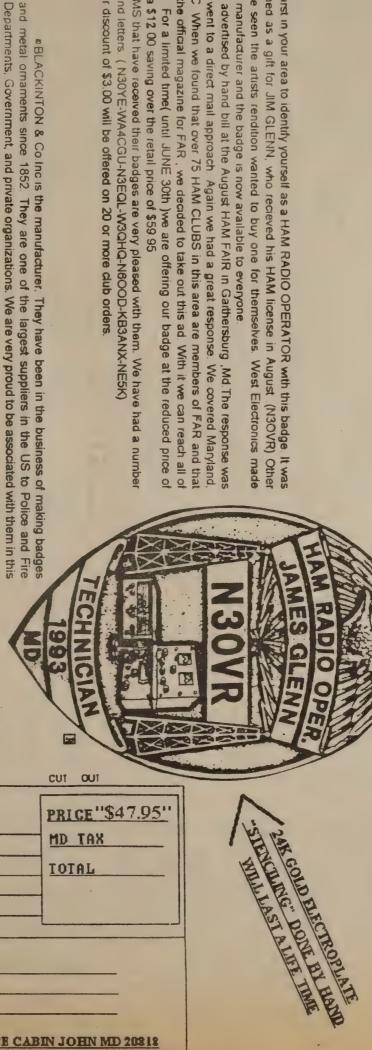
OFFER ENDS JUNE.30th \$47.95

HAMS that have seen the artists rendition wanted to buy one for themselves. West Electronics made originally designed as a gift for JIM GLENN, who recieved his HAM license in August (N3OVR) Other Be the first in your area to identify yourself as a HAM RADIO OPERATOR with this badge. It was

\$47.95 This is a \$12.00 saving over the retail price of \$59.95 the local HAMS. For a limited time (until JUNE 30th) we are offering our badge at the reduced price of Virginia, and DC. When we found that over 75 HAM CLUBS in this area are members of FAR and that terrific Then we went to a direct mail approach. Again we had a great response. We covered Maryland AUTO CALL is the official magazine for FAR, we decided to take out this ad. With it we can reach all of contact with the manufacturer and the badge is now available to everyone. We first advertised by hand bill at the August HAM FAIR in Gaithersburg , Md. The response was

of prione calls and letters. (N30YE-WA4CGU-N3EQL-W3QHQ-N8OOD-KB3ANX-NE5K) The HAMS that have received their badges are very pleased with them. We have had a number

A further discount of \$3.00 will be offered on 20 or more club orders.



ORDER NOW SAVE \$12.00

PRINT

ZIP

WALLET CLIP

STATE

MD TAX

TOTAL

As WEST ELECTRONICS has exclusive rights to the sale of the The manufacturers suggested price is \$59.95 electroplate. The lettering will be blue. inches. The base badge is finished in a beautiful GOLD This is the actual size of the badge. It is 2 1/2 x 3 1/2

YOU MAY WRITE TO US AT FOR FURTHER INFORMATION

THE ADDRESS BELOW OR

CALL 301-229-7464

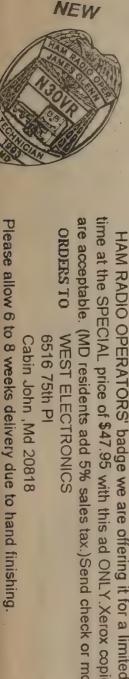
are acceptable. (MD residents add 5% sales tax.) Send check or money time at the SPECIAL price of \$47.95 with this ad ONLY.Xerox copies WEST ELECTRONICS

Please allow 6 to 8 weeks delivery due to hand finishing Cabin John ,Md 20818

DATE OF CLASS STATE NAME

ADDRESS

O PIN



WMA/FEDERAL SYSTEMS (FORMERLY IBM) AMATEUR RADIO ASSOCIATION

- Meetings: First Tuesday of the Month that is a weekday, 5:45 p.m.-7:00 p.m.
- Next Meeting: April 5, 1994 at 5:45 p.m.,
- Building 182, Room 3C-51 (The Radio Shack)
- Chat Net: Sunday Evenings (147.39 MHz, 9:00 p.m.)
- Packet: 145.75 MHz (Montgomery County RACES frequency), running TCP/IP netcode (WA3YHE-1)
- Information: Erinn Tordella/N3HSA (301) 640-4286; or leave VoiceMail in the Radio Room (301) 240-6877

These are exciting and challenging times for the Washington Metropolitan Area (WMA) Federal Systems Amateur Radio Association (LARA). First there was the announcement of the sale of IBM's Federal Systems Company to the Loral Corporation. Then we made a deliberate effort to familiarize ourselves and become comfortable with our new name (i.e., the Loral Federal Systems Group); next we began to plan for the actual transition in March; now we are settling down into the post-sale stage whereby we act strategically consciously, and pro-actively to align the ARA with the business policies and practices of Loral.

By now, the news has spread among the local Amateur community about the recent cutover of our Club's 2-meter packet radio station to 145.75 MHz. This is the frequency assigned by DMARC (the Digital Mid-Atlantic Radio Council) for WA3YOO, Montgomery County RACES. Using this as a starting point, we hope to be role models for Amateur Radio civic activism and staunch representatives of community volunteerism--cooperating with local government agencies)--in this case, Montgomery County's Division of Emergency Management, a subset of Montgomery County Fire/Rescue Services.

Before we close this month, we'd like to express our Club's appreciation to its hard-working

officers and members, many of whom have contributed to the ARA's recent successes. Because April 15 signals the end of the normal tax season, we'd like to single out our Club Treasurer, Bill-KX8I for his diligence again this year in preparing and completing the required tax information to legally maintain the Club's non-profit organizational status. As yours truly tells Bill (and anyone else within earshot who will listen!), without this "good housekeeping seal of approval" from the IRS, the WMA/Federal Systems Amateur Radio Association--as we know it--would cease to exist!

'73, Erinn/N3HSA, President

2 Land Communications, Inc.

Specializing in VHF-UHF Amateur Communications.

Box 559 JFK Facility Jamaica, NY 11430 718/322-4660

HT's - Mobile Rigs - Accessories - Power Supplies Power Meters - TNC's - Mobile & Base Antennas Books - Videos - Study Materials - Practice Oscillators - Keys - Paddles & Keyers for CW buffs.

ARRL - ARTSCI Modification Books - CQ Videos Gordon West - NARA - Radio Amateur Callbook W5YI - Diamond - Comet - Larsen - Kantronics AEA - MFJ - Nye Viking - Bencher - Anli

We have a LARGE selection of these items in stock and we ship via UPS & USPS. We also look forward to seeing you at most hamfests in the Autocall subscription area.

TNX es 73 de Kevin, N2KXX - Pres.

CAPITOL CITY INTERNET SERVICE

NO-FRILLS, NO-MENUS INTERNET access

telnet, ftp, gopher, wals, e-mail
HAM RADIO CALLBOOK, PACKET RADIO

FLAT RATE \$20 703-448-4470

AMSAT

The Radio Amateur Satellite Corporation

- · Meetings: Semiannual in January and July.
- VHF FM NET: Sunday at 9 p.m. on 146.835 MHz, WA3NAN/R, Greenbelt, MD.
- Information: NCS Pat Kilroy-WD8LAQ, 301-249-3396 bef 9 p.m., or by packet radio WD8LAO @ WB3V.MD, or by Internet wb8laq@amsat.org

AMSAT is a non-Profit, scientific and educational organization incorporated in Washington, D.C. with headquarters in Silver Spring, Maryland. Everyone is welcome to join AMSAT and to become actively involved in the support and operation of the amateur space program. if you would like additional information then please write to; AMSAT Headquarters, Po Box 27, Washington, D.C. 20044. Or you may telephone headquarters at 301-589-6062. AMSAT Regional Coord: Howard-WA3GOV.

A BEGINNER'S FORUM

The semiannual meeting this past January was well attended and highly successful. But many have asked for a special forum dedicated specifically towards topics of interest to amateurs who have little or no experience with satellite communications. On top of that, such an assembly seems to be desired prior to Field Day this year.

Well, I have some good news for you and your club. The local AMSAT group hereby announces a beginners forum in the Greater Washington, D.C. area on Saturday, April 16, 1994. This special afternoon event will take place not far off the Capitol Beltway at the Dolley Madison Community Library on 1244 Oak Ridge Ave. in McLean, Va. There will be talk-in provided on the AMRAD repeater, 147.210 (+) WD4IWG/R and the series of demonstrations will begin at 1 o'clock sharp. There is no admission charge, no advanced registration required. Thank you to Steve Greene, KA1LM, and others who are pulling this off for us all!

Please announce this opportunity at your club meeting, on your club net and to your Field Day chairman. Invite your local High School science class for the SAREX (Shuttle Amateur Radio April 1994

EXperiment) topic. Bring your questions and curious mind. Be prepared to experience some real operating hands-on equipment! All fast moving and exciting stuff, guaranteed! No question will be turned away or go unanswered.

Now is the time to check out how to work those satellites.

All this is being brought to you by a bunch of friendly guys who love OSCAR satellites and wish to share the fun and their own learning experiences with you.

73, Pat Kilroy-WD8LAQ - AMSAT

Capital City Amateur Radio Society

- Meetings: 3rd Saturday of the month at 12
 Noon (except July & August). Woodridge
 Public Library, 18th & Rhode Island Ave. NE,
 Washington, DC
- Repeater: 145.11/144.51 Mhz in NE Washington, DC. Auto-patch membership available.
- Weekly Nets: Computer Net: Monday at 8
 PM on the repeater Packet Net: Tuesday at 8
 PM on 145.53 MHz
- On-Air Meeting: Wednesday at 8 PM on the repeater RTTY Net: Thursday at 9 PM on the repeater (All amateurs are welcome to join in on any of these nets).
- Information: Chester R. Martin, W3EIL, (202) 529-9598 1719 Franklin St. NE, Washington, DC 20018 Leo J. Boberschmidt, KA3TGY
- KA3TGY@N3BBF,MD.USA.NA
- Training: Plater Campbell, N3DZQ, (202) 544-7810

NEW MEMBER: During the February meeting of CCARS, the following was elected as a member of the club: N3MDR - Alexander Gonzaga of Fort Washington, MD. A warm welcome to Alexander.

CCARS OPERATOR AT NN3SI: Joe Saunders, K3UAL, has been appointed as a regular operator at NN3SI, the amateur radio station of the Smithsonian Institution. The station is located in

Continued on next page

AUTO-CALL Page 39

Mount Vernon Amateur Radio Club

- Meetings: Second Thursday of each month, 7:30 p.m. (except December) Mt. Vernon Governmental Center 2511 Parker's Lane, Alexandria, VA 22308
- Repeater: WD4PDP/R 146.055 input 146.655 output
- Nets: Every Tuesday at 9:00 p.m. Starts on 2meter then moves to 10-meter on 28.408
- Information: John KI4HK, (703) 780-2882 or Julie KD4WSZ, (703) 799-9466
- Training Classes: John Forrest WZ4A, (703) 971-3905
- Testing: Second Saturday of each month, 9:00
 a.m. Robert E. Lee RECenter in Lee District Park
 6601 Telegraph Rd., Alexandria, VA 22310
- Mailing Address: Mt. Vernon Amateur Radio Club (MVARC) c/o Frank Mackey N4GUS -P.O. BOX 7234 Alexandria, VA 22307

April showers, etc, etc. Hopefully the rains of April will be milder and warmer than the cold and wind of February and March.

And cold and windy it was at the Vienna Hamfest. Yet, great buys were to be had and purchases were made. It was enjoyable to see the number of MVARC members who came out for the fest.

February was a busy month:

The guests at the Feb. meeting were; Woody Stewart, Steve Cruse KB2BNX, Jeanne Rexroad N4ZGI, James Dutton, and Bob Smith N3FTU. A very good turnout of guests and members, considering that freezing rain was forecasted and did start about 8:30.

The weather was beautiful for the George Washington Weekend event at the Mt. Vernon Estate. Two days and numerous contacts. (statistics to be tallied). Many thanks to the participants: George KD4WTU, Glenn KR4AT, Tom N4BV, Bill KE4BAE, Frank N4GUS, Joe KR4CZ, Tim KE4IRT, Doug WA3WEP, Bill KD4CNS, Will KD4CNX, Steve KQ4XE, Brian KE4CLB, Keith

KO4IO, Luke KO4IQ, Dale KE4LX, Joe KQ4MJ, Steve WB4EEA, Bob KF2CQ, Jerry N5GKJ (guest), Fred AB4NU, Dick WA4USB, Richard Harmon Jr. (guest) and me-Julie KD4WSZ. Whew! What a long list. A great time was had by all.

Cold and wet was the Presidents' Day Parade in Old Town Alexandria. True to form, MVARC was there: Steve WB4EEA, John KJ4HK, Bill KD4BAE, Frank N4GUS and Julie KD4WSZ.

Continued on next page

CCARS - Continued from page 39

the Museum of American History, 14th and Constitution Avenue, Washington, DC. Joe's duty day is Monday from 1500 to 2000 UTC. He says that meeting hams and other visitors from all over the world is an enlightening experience. Joe is also operator of Radio Hyattsville, a U.S. Coast Guard Auxiliary Radio Facility for the 5th Coast Guard District. Hope all this activity doesn't cut into Joe's time for Dxing. So, if you're at the Smithsonian on a Monday stop by and chat with Joe or stop by whenever you get the chance and see what the Smithsonian has for showing off ham radio.

ANTENNA CHECK: By the time you are reading this column, the weather should have moderated from the severe winter conditions we all experienced in January, February, and March of this year. Now is the time to get out there and check over all your antennas. Are all the supports still sturdy? What is the condition of any rope holding up your wire antennas? Check your trees. Were any limbs weakened by the winter snow and ice? Do whatever trimming is required before a Spring storm brings down a limb and your antenna. Also, don't forget to check that your coax or ladder line is still in good condition.

CCARS BIRTHDAY PARTY: The CCARS Board of Directors is checking into the possibility of a CCARS Birthday Party, possible in April; check in to the Wednesday night net at 8 PM on the repeater for any late breaking details.

National Capitol DX Association

- Meetings: Feb, Apr, Jun, Aug, Oct and Dec at a member's home. Contact the Secretary (Rick Murphy, WA1SPT) for details.
- On-The-Air: Every Sunday at 8:30 PM on the 147,000 repeater. All are welcome!
- Information: Rick Murphy WA1SPT (703)
 280-2637. Leo Boberschmidt KA3TGY
 (301)946-3738 or KA3TGY on the local DX
 PacketCluster or KA3TGY @ N3BBF. MD.
 USA.NA

NCDXA Field Check DX Hunt: This NCDXA operating event has come to a successful conclusion. The following give the results for those who earned a plaque: WA3DVO - 227, W3UJ - 217, N3II - 220, N3TO - 200(+), N4MM - 234, WC4B - 202, W3GOH - 206, WE6H - 200, W3GG - 203, and K6IR - 226.

Congratulations to all who participated in this event. Note that the club officers are looking for suggestions for another operating event. What would you like to do?

NCDXA Travellers: Larry Vogt, N4VA, was delayed in his FAIRS trip to Guyana (8R). At the last minute, he was called in to help with video tape work at the Olympics in Lillehammer. Larry said that due to the high costs of laundry services there, he probably earned a god medal for "Washing Clothes in the Hotel Room." Larry was scheduled to leave for 8R-land on March 4th. He was also planning to try to activate one or more of the 8R islands for the Islands On The Air (IOTA) program. At the February meeting, Fred Laun, K3ZO, gave a really good overview of his recent operation from Thailand where he was HS0ZAR. (See what you missed by not being at the February meeting). Pradyumna Rana, WB4NFO, will be in Thailand until April 13th with a probable side trip to Nepal. Ron Payne, WA6YOU, operated from Somalia for about a week at the beginning of March. Hope many of you get a chance to work our NCDXA travellers. If we get enough members travelling to all those DX spots, maybe we can create an "NCDXA DXCC Award."

ON4UN SPECIAL EVENT: If you are interested in low-band DXing, mark Saturday May 7th on your calendars. World-class low-band DXer, John Devoldere, ON4UN, will be at a special program jointly sponsored by NCDXA and the Potomac Valley Radio Club. John will be discussing his new book ("Antennas and Techniques for the Low Bands") and also will be showing a video tape on his recent OT4T multi-single phone contest effort where his group scored 12.34 million points. The starting time will probably be 1PM that Saturday and the location will be the auditorium of Capitol College, just off the Baltimore-Washington Parkway. Full details will be sent with the April meeting announcement.

73 & Good Dxing. Leo Boberschmidt, KA3TGY, President, NCDXA.

MVARC - Continued from page 40

March will be the St. Patrick Day Parade. We look forward to various springtime events. Call Steve WB4EEA 780-7248 for details about the spring calendar.

Congradulations to Glenn KR4AT for upgrading to EXTRA. Who is next?

On a sadder note, MVARC sends condolences to the families of two silent keyes: Dotty Lake N2MBH and Jim Crossman W4LVD.

Is anyone interested in contests? Then Chris Worsley KD4IBI is the HAM to speak to, 960-9030.

Testing; second Saturday of every month. Code and written, all levels. At Lee District Park in Alexandria. No charge and walk-ins are welcome. Call Frank N4GUS at (703) 455-1510 for information or if you are interested in being a VE or helping at the exams. You don't have to be a VE to help out. Please arrive between 9 & 10 a.m. for testing.

MVARC's Next Meeting: April 14, 1994.
Julie, KD4WSZ

Rock Creek Amateur Radio Association

- Meetings: 3rd Friday of each month at 7:30 PM.
 VITRO Corp.Bldg #4, 13900 Connecticut Ave.,
 Silver Spring, MD
- Repeater: W3RCN, 145.25/144.65 in Rockville,
 MD
- Weekly Net: Monday at 8 PM on the repeater
- Alumni Net: Monday at 10:45 AM on 7.230 Mhz(+/- QRM)
- Luncheon: Each Wednesday at 11:00 AM at the Anchor Inn in Wheaton, MD
- Address: P.O. Box 1913, Silver Spring, MD 20915
- Information: Leo Boberschmidt KA3TGY (301) 946-3738 or KA3TGY @ N3BBF. MD. USA.NA

RCARA member Bob Price, N3NNQ is finally back in the area full time after an extended schedule that had him working in Atlantic City, NJ, during the week and coming home on weekends. He has lost no time in getting active in club affairs and is in the process on setting up a ham demo for a local Boy Scout troop.

SPECIAL EVENT: The Rock Creek ARA will use the club call sign W3RCN 1300Z - 2100Z May 7 to help celebrate the Town of Kensington's centennial. Operation will be in the General portions of the 40, 20, and 15-meter phone bands, the Novice 10-meter phone subband, and on satellite via RS-12. For QSL, send QSL and SASE to Rock Creek ARA, P.O. Box 1913, Silver Spring, MD 20915. The location for this event is the Town of Kensington Town Hall (the old Armory building) at the corner of Mitchell and Armory in Kensington, one block east of Connecticut Avenue. There will be the HF station plus a packet station, ham radio literature, and 2-meter demos. All are invited to stop by and help us celebrate Kensington's Centennial

73, Leo-KA3TGY2N3BBF.MD.USA.NA

The Springfield Estates Elementary School Amateur Radio Club (SEESARC)

- Meetings: First Friday of every month at 7:30 PM, Springfield Estates Elementary School, Room 19, 6200 Charles Goff Drive, Springfield, VA
- President: Will Schmitt, KD4CNX 703-768-5709 Vice President: Savannah Lyons, KE4CLL 703-550-9759 Secretary: Daniel Keegan, KD4CNY 703-971-2389 Treasurer: Vishal Madhavan, KD4EKD 703-765-1004
- Landline BBS: Conference #4 on Dos Spitzen
 Sparken BBS 703-791-6198
- Mailing: SEESARC, 6200 Charles Goff Dr., Springfield, VA 22150

Club members are pleased with our participation in this year's School Club RoundUp Contest. Last year our club finished in second place in the U.S. Elementary School category. We hope to move up one notch this year! We hope YOU are in our log for this contest.

Again this year the Mount Vernon Amateur Radio Club (MVARC) invited us to participate in their Special Events Station on February 19-20 which commemorated George Washington's two hundred sixty-second birthday. We operated a novice station on the 10 meter novice band along with the other MVARC stationsfrom the grounds of the Mount Vernon Estate. We made 105 of the 908 total contacts made during the Special Events. I hope you contacted us - MVARC has a very attractive special events certificate to commemorate the event.

Unfortunately, the bad weather has disrupted the progress of our novice training class and put us behind our schedule. But enthusiasm is still high and we hope to catch up and be ready to take the novice code and written tests in March or April.

Our club meetings have had several terrific programs. Keith (KO4IO) and Luke (KO4IQ) Ward gave an interesting demonstration of slow scan television.

Continued on next page

VIENNA WIRELESS SOCIETY

- Meetings: 2nd and 4th Fridays of each month,
 7:30 PM, Vienna Community Center, 120 Cherry
 Street S.E., Vienna, VA
- Repeaters: K4HTA/R 146.085 in/146.685 out,
 443.375 in/448.375 out
- Nets: Vienna Emergency Net every Thursday at 7:30 PM, 146.085/146.685. Pow Wow Net every night, except meeting nights, at 9:00 PM on 28.444 Mhz. Slow Code every night, except meeting nights, at 8:30 PM on 28.390 Mhz.
- Information: Brian Bayus-NIKCE, (703)264-
- Training Classes: Paul Wilkins-AB4CY (703) 560-2779

The VWS Membership meeting scheduled for February 11th was canceled due to inclement weather. The ice storm was certainly a danger and this writer learned about instant personal polarization change, from vertical to horizontal, while trying to retrieve the mailbox which had been knocked off the post by the mail truck. Had to get those QSL cards, you know!

The Membership meeting held on February 25th was devoted principally to WINTERFEST preparations. WINTERFEST Chairman, Ross Patterson-N4YYH, gave final instructions to the troops and with his excellent preplanning and the fine efforts of his assistant, Jorge Thevenet-KD4DGQ, the Committee Chairpersons, and the VWS Members, all went off without a hitch, although Ross was just a few degrees off with that 50 degree temperature prediction. The VEC exam session held the day before and chaired by Ron Natalie-WO2L, had a fine turnout and the report is that there were many smiling faces afterwards. Congratulations to Ron and all those who either joined the amateur ranks or upgraded. Thanks to all who attended for making this another successful WINTERFEST. We hope you had a good time, found some great bargains and look forward to seeing you next year.

The VWS Training Coordinator, Paul Wilkins-

AB4CY, will soon bp, starting a training class in preparation for Novice/Technician exams. The classes will begin on Saturday, March 26th, will run from 10:00 to 12:00 AM, and will be held at EEB (Electronic Equipment Bank) located at 323 Mill Street in Vienna, Virginia. Class size will be limited, so please call Paul at the number shown above to enroll and for additional information. All are invited, so don't miss this opportunity to learn from the best and most entertaining teacher around, Professor Paul

73, Brian - N1KCE

SEES - Continued from page 42

Steve Johnson (KQ4XE) gave us a lesson in on-the-air operating techniques. Dan Gropper (KC4OCG) gave us a very informative talk about the local SKYWARN net and Dr. Clyde Nishimura from the Naval Research Laboratory gave us a fascinating presentation about his project to monitor the sounds of large whales and under ocean earthquakes recorded on the U.S. Navy's SOSUS hydrophone arrays. Thanks guys for the great programs.

Regular club meetings are on the first Friday of every month at the school at 7:30 pm. Anyone can come. We invite interesting speakers to our meetings to talk about Ham radio topics. Membership is open to anyone.

SEESARC is seeking donations of world band receivers to introduce new members to SWL before they receive their licenses. Also needed for the Club station are an antenna tuner, two meter rig for our packet station, and a 12-volt power supply. SEESARC will accept donations of any equipment, working or not. If you are cleaning out the shack and just want it hauled off, give any officer a call and we will help. We are a qualified non-profit organization and can give you a receipt for your tax deductible equipment donation. We use donated equipment tohelp our new members get on the air with their new tickets.

73 and Good DX from SEESARC.

Bill Schmitt

ANNE ARUNDEL RADIO CLUB

- MEETINGS; 8 pm. 1st. and 3rd. Thursdays, Davidsonville Family Recreation Center, Queen Anne Bridge & Wayson Roads off MD Route 214 near Annapolis.
- ON THE AIR; 2030 Thursdays when there is no club meeting on 147.705/105. Tuesdays at 2030 local time on 28.410. The Chesapeake Weather & Traffic Net on 147.705/105 at 1100 and 1500 every weekend day and public holiday from April 1 to November 15. MSN (Maryland Slow Net) every evening at 1930 on 3.7170 MHZ.
- ADDRESS; P. O. Box 308, Davidsonville, MD 21035
- INFORMATION, Margaret (Holly) Bevan, 301-923-0229

Dave Vittum/W1DV, Chief Navy-Marine Corps MARS, gave a very interesting and informative presentation on MARS (Military Affiliate Radio System) at the February 17th. program meeting. For anyone who might not know, MARS is sponsored by the Department of Defense and is divided into separate Army, Navy-

Marine Corps and Air Force programs. Licensed amateur radio operators are trained to provide communications between military personnel and their families locally, nationally or internationally on specially assigned military radio frequencies in voice, teletype, CW packet modes of communications. They are looking for volunteers.

The AARC-sponsored Chesapeake Weather and Traffic Net starts on April 2nd. Margie Currey/ KA3PQP is now assigning net controllers. She asks that any interested persons who have not already volunteered get in touch with her. The National Service monitors the nets (weekend days and holidays) and works any applicable information into their bay forecasts.

Both the Novice Class and the VE Testing Session were canceled on February 12th. due to the ice accumulation. The next testing session at the AARC Clubhouse will be on April 9th.

We are sad to report that Cooper (Coop) Chapman/N3JED became a silent key on February 24th. while visiting in Florida. Although he had been a club member for only a short time, we will miss chatting with him on 2 meters. Coop, who was born and raised in Mississippi, worked for Westinghouse. He served in the Navy and had lived in Arnold since 1972. A graduate of Mississippi State, he held a Master's Degree in Engineering Administration from George Washington University. He was very active in civic affairs. He is survived by his wife Marjorie and daughter Susan Chapman of Arnold.

Congrats to Ron Richardson/N3LQQ who has upgraded to General and to Peg Staele/KB3ADN who is now a Tech+.

73, Holly/N3BMB

GREEN MOUNTAIN REPEATER ASSOCIATION

- MEETING: Board of Directors, last Monday of each month.
- REPEATERS: KD3VR-146.61(Cheverly) K3GXF-146.88(Greenbelt)
- LUNCHEON: First Saturday of each month at Fountain Cafe Laurel Shopping Center Mall U.S.
 Rt. 1(Balt.Ave.) & Cherry Lane Luncheon Begins at 11:30 am.
- MAILING: GMRA; P.O. Box 429, Riverdale, MD 20737
- INFORMATION: Boyd Nelson KZ3Z (301)434-0934

Since the advent of the codeless license class for Amateur Radio Operators, the VHF and UHF ranks have increased considerably. Repeaters, (those wonderful units) have been called upon more frequently. We certainly are grateful to the Green Mountain Repeater Assn. and it's Board of Directors for supplying all of us with the use of it's two repeaters.

Thinking back, just a few years ago, when I received my first license 10-meters was wide

Continued on next page

LAUREL AMATEUR RADIO CLUB (LARC)

"It was truly a boring day on the course...", reported Pud, W3DQI, who coordinated the communications for the Washington Birthday Marathon on Feb. 20th at the Beltsville U.S. Dept. of Agriculture course. The unusually warm (60 deg.) weather on the day of the event may have been a little warm for the runners, but it made things easy for the LARC members who provided the communications. LARC participants included: HD/N3LFL and Donna/N3HYF, W3DQI, N3NYM, KD3ZH and KD3ZS on the course. Howard/K3IOG drove the course "backwards" looking for runners needing assistance.

At the LARC monthly meeting in January, Dick/N3MJA presented a video of a past SAREX operation in preparation for the Eisenhower School mission, and Barney/W4MTE made a presentation regarding satellite operation and tracking, notably RS-10 and RS-12. Subsequently, a few nights later, Jim/WI3N, made his first satellite contact via RS-12 with a station in Newington, CT. He's already talking Field Day bonus points for satellite contacts! At the February meeting, John/N3GXA provided a very interesting talk on various topographical maps and other maps, which are useful to Hams and are available from the U.S. Geological Survey and other local sources.

The Laurel VE team tested 46 individuals at the Maryland Radio Center on Jan. 15th. At the February test session, 51 individuals were tested and 80 elements were administered. Special congratulations to 13 year old Christine Armstrong, (visually impaired) who passed her Technician Plus elements!

Jim/WI3N and Pud/W3DQI started a general Licensing class on Feb. 28th. at the Fairland Aquatic Center.

73 de Roger/N3MIJ

open at the peak of the solar cycle. It was so easy to turn my little Uniden HR 2510 transceiver on with 25 watts PEP and a vertical ground plane antenna and contact someone on the other side of the world. I though HF was the only way to go. Naturally, I was wrong.

A friend mentioned 2 meters and I said "what is that?" Well! needless to say I was soon to learn. My friend, (bless his soul) showed me his handheld and how it worked. Say no more, I said, I'm sold, lock, stock and barrel. What a great way to communicate, mobile, hand portable or base.

Auto-patch capability, which GMRA offers on the 146.61 repeater, to it's members, for the \$15.00 yearly dues, is another great feature of 2-meters. In case some of us may not be aware, GMRA has to reimburse the Telephone Company 10 cents for each call made. Calls made by Amateurs should be of personal matters and not for business. Emergency calls take precedence over others and GMRA would like it's members to use this service discriminately. Thank you.

Each member, at one time or another, has been mailed an information sheet on the use of Auto-patch and personal and programming codes, If for any reason you need information or have a problem, feel free to contact one of the directors.

During one of the latest Board meetings it was decided to appoint 3 more control operators-H.D.,N3LFL, Don,W3RYQ and Dan, KA8YPY who will try to monitor the repeater frequencies. Don't forget the first Saturday of each month for the luncheon get-together.

See Ya.
73's Ken Easton, N3HLY

HERNDON REPEATER GROUP

The Herndon Repeater turned 10 years old as of late 1993. HRG has been using the same controller this entire time. The estimated instruction cycles the CPU has made is 1.05 X 10 to the 14th power. Enough to make you tired just thinking about it. Special thanks to Craig/N4FSC and everyone else who has kept the repeater in such great condition over the years, and for adding the new features recently added.

The HRG's Youth Net meets every Wednesday night at 7 pm on 145.31. We encourage all hams under the age of 18 to check in. Also, if you are a ham and know of a young person interested in amateur radio, have them check in with your help during the third party traffic section at the beginning of the net. For further details you can contact David/KD4YIJ.

HRG's final formal Field Day meeting was held on March 19th. Nick/KD6ADY chaired the meeting at a local pizza eatery and then moved the meeting to our Field Day site, Lake Fairfax Park, for a detailed site survey. HRG will again be competing in the 4A Battery category which we have won the last two years. It's not too late to get involved with Field Day preparations. If you would like to volunteer to supply any equipment (especially batteries) please contact Nick. HRG's Field Day activities have always had something for everyone to enjoy. We have stations dedicated to the hard core contester, stations for the more casual operator and a Novice/Tech station for our newer Hams. In addition, Lake Fairfax provides many activities for non-Hams and Hams alike, such as camping, swimming, ball fields, not to mention the social scene at our Field Day site. Come join us for a weekend of fun and radio, and help HRG go for the "threepeat".

The Herndon Repeater Group will offer ARRL/VEC exams, Novice Extra on Saturday May 7th (not May 14th as previously listed) in Sterling, VA. Contact Mike/WB8RDN at (703) 450-2304 for details.

73, Mike, KD4MTW

LEISURE WORLD AMATEUR RADIO CLUB

- MEETINGS: Second Tuesday of each month,
 2 pm. Clubhouse I, Leisure World, 3700
 Rossmoor Blvd., Silver Spring, MD 20906
- NET: Monday, 7pm, 144.650/145.250 Rock Creek ARC Repeater
- INFORMATION: Bob Beck, (301) 598-6277

The Leisure World ARC is ready for spring! We have purchased a tribander and are anxiously awaiting good weather for our big antenna party! This should provide a significant improvement in our HF coverage. Some of our members are planning to use the opportunity to join their fellow Hams in DXCC.

Thanks to the efforts of ARCH, W3WUR, we are sporting new royal blue caps with gold lettering, and new name badges in preparation for our participation in Leisure World Special Events.

It is with deep regret that we note that three of our members became Silent Keys within the past two months; Walt Ramsey, AB3K Steven Windes, W3HLQ and Joe Herzberg, N3EA. They will be missed.

73's, Bud/NOAA





MADRAS

The Maryland Apple Dumpling Radio Amateur Society Inc.

- MEETING: 2nd and 4th Thursdays 7 p.m.
 NBC Bldg., WKYS Conference Room 4001
 Nebraska Ave., N.W. Washington, DC 20016
- NET: 1st and 3rd Thursdays at 8:30 p.m. -145.45 MHz
- REPEATERS; 444.100/449.100 MHz 145.45/ 144.85 MHz
- MAILING, P. O. Box 2468, Wheaton, MD 20902
- INFORMATION: Hani Raad AA3EI, (202)
 223-3925 Larry Ziecheck N3GKZ, (301) 984-6112
 6112 Jean Blacik N3PLC, (301) 984-6112

ITEMS OF INTEREST

Rip Smith - KC3H who is the RACES Officer and ARES Emergency Coordinator for Montgomery County was our guest speaker on February 10th. He was a most enthusiastic speaker and gave an excellent presentation.

Our February 24th meeting was on "Field Day '94", presented by Scott Standiford - W3YTW, a member of MADRAS. We're all very excited about this year's Field Day and wanted to get an early start on planning our strategy this year. Anyone interested in joining us this year for the big event, please contact Jean - N3PLC, at our Clubhouse: (301) 984-6112.

Lots of activity on our BBS station, which is up and running. Keep those messages coming.

Happy Easter!!!

73's...Jean - N3PLC

All Clubs are asked to please send your club heading with your club articles. This will allow us to keep our records up to date and will speed your club column entry. (I t takes time to look up your header and type it in).

TNX, The Editor

PRINCE GEORGE'S WIRELESS ASSOCIATION

- MEETING: First working Tuesday of each month, 7:30 pm., American Red Cross Service Bldg. 6206 Belcrest Road, Hyattsville, MD 20782
- CLUB STATION: K3CEZ
- MAILING: 4109 Kennedy St., Hyattsville, MD 20781
- INFORMATION: Frank Holton, WA3ZMW, (301) 927-12454

PGWA held it's regular meeting on Tuesday, February 1st at 7:30 pm with President Frank Holton, WA3ZMW presiding. There was a good turnout of members. Frank read the usual announcements and incoming Club correspondence. Dan, W3SWD, read the minutes and gave an account of the last Foundation of Amateur Radio meeting that he and Ken, N3HLY attended.

Since setting up the Club's new Packet Station with the help of Dave, WB3KXL, it was decided that Saturdays would be members training days. Dave has offered to help train those concerned. Due to the severe weather we have experienced during winter this training program hasn't begun...but it will!

Dan, W3SWD is looking into improving our inter-station communication, during our disaster drills (SET's). The disaster Control Officer for the Red Cross is located on an upper level of the building and our Club Station is on the lower. Our intercom units need updating so Dan is looking into other means, possibly non-amateur hand helds.

Each year our call-up list for emergency operations is up-dated. Dan, W3SWD usually sets this up. Since we have some newer members they may be added to the list. Also, some Club activities are on the drawing board such as: participation in the Annual Crop Walk, put on by the First United Methodist Church of Hyattsville and our Field Day exercise along with our SET program.

73's Ken Easton, N3HLY

NORTHERN VIRGINIA FM ASSOCIATION

On February 17,1994, after two snow cancellations, the NVFMA held its winter meeting. Bob Bruninga, WB4APR, gave a fantastic demonstration of his GPS/packet interface software. The capabilities of the software are nothing short of fabulous. The applications seem limitless. From watching the Naval Academy cruise, to Bob's winter vacation trip to the south, to the RF direction finding capabilities of the system, one's imagination appears to be the only limitation to the software! Thanks again for the demonstration and we can't wait to see what will come with the next revision!

Hal, WA4QVT and Gil, K7OR were elected directors of the association. They are thanked for giving their time and experience to the association. Ned, K4JYF is thanked for his many years of dedicated service as a director and officer of the association.

Work continues on the Bull Run remotes for 146.91 and 146.79. Everyone who came to the meeting to ensure a quorum is thanked for braving the winter night.

Dan, KC4OCG

Orders and Inquiries 5-9 PM EST (301) 963-7752 Help Line 8-9 PM EST (301) 869-6436

PACKET GADGETS

"Connect with GADGETS!"

Ken Ramirez - KH2F 9404 Rushmore Ct Gaithersburg, MD 20879

AEA • PacComm • DRSI

H3UAL PRINT - QSL SPECIALIST

STOCK & CUSTOM QSL CARDS

24 Hour Service

OMIK Logos

Send SASE for Samples

Telephone 301 773-9383 or 773-5074

1520 Jutewood Ave. Hyattsville, Md. 20785

SHENANDOAH VALLEY AMATEUR RADIO CLUB, INC

- MEETINGS, First and Third Friday each month at the Collins Bldg.; 2921 Grace St., Winchester, VA at 7:30 pm.
- REPEATER; W4RKC 146.22/82
- NET: SVEN Each evening at 7:15 146.22/82
- ADDRESS: P.O. Box 139 Winchester, VA 22604
- INFORMATION: Danielle Kukanich, KC4SUV, (703) 662-3218

With the weather being what it is, club activities this year so far have not been all that great. So far we have only been able to have one meeting. We did have our annual Shrimp Feast on the 18th of last month. Irv, KD4BHV, our new club president and Jane, KD4IET did a great job in preparing for the affair.

At this event a short business meeting was held to elect some officers for 1994. We now have a full slate as follows:

Irvin Barb, KD4BHV, President
Rick Choy, N3HXT, Vice President
Danielle Kukanich, KC4SUV, Treasurer
George Ritter, W4UGX, Secretary
Walter Johnson, WA4HUV, Trustee
Mike Collins, W4ACC, Trustee
Olin Stultz, WA4OYD, Trustee

I am happy to report that we are processing several applications for membership in the SVARC. I think we now have about ninety five members on the roster.

The president has appointed Rick,N3HXT as this year's Hamfest Chairperson. Rick has generated a very nice Hamfest flyer, some of you may have seen it at Vienna. Rick has some new ideas which I will report later on in the year. The reason for reporting later is very simple...I don't know yet what they are!

With so much snow on the ground it's hard to think of events which we support, but we are working planning for them in the spring.

73's Walt

Silent Key Walt Ramsey AK3B



It is sad to report that Walt Ramsey, AK3B, died on the evening on January 6th, 1994 at age 72 after a long bout with colon cancer. He will be sorely missed by all of us.

Walt was a long time, very active member of the Rock Creek Amateur Radio Association. He got his Novice license (KA3CTZ) in March 1979 after being in Jim McDonough/W3CY's ham training classes at the Vitro Corporation. Walt continued studying on his own and upgraded to Amateur Extra Class, getting his familiar AK3B call in January 1980. He was president of Rock Creek ARA from 1981 to 1983. For the past several years, he had been the club's Chairman of the Repeater, Education, and Program Committees. He had also, until very recently, been our ARRL Liaison, club public relations officer, and Editor of Rock Creek Ripples, the club newsletter. He was a regular check-in to the club's Alumni Net on 40 meters on Monday mornings and the 2meter net on Monday evenings. He was also a regular at the weekly Wednesday luncheons at the Anchor Inn.

There are many hams in this area and elsewhere who owe their initial ham licenses or upgrades to the classes that Walt conducted for so many years. He was also very active in the club's Field Day activities, often getting the Maryland governor to proclaim Field Day week as "Amateur Radio Week" in Maryland. Walt would always be on hand to organize and help out with amateur radio support for any of the club's public service activities: the Youth Policy Institute's C&O Canal Run, the City of Rockville Memorial Day Parade, a charity race in Rock Creek Park. He was also an active supporter of the HandiHam program, helping various handicapped hams with licensing, antenna installation, and station setup.

WORLDWIDE DISTRIBUTION



Curtis Brown Manager WB4KZL

14803 Build America Drive, Bldg B Woodbridge, VA 22191 (703) 643-1063, 1-800-444-4799 Service (703) 494-8750

(800) 444-4799 Woodbridge, VA

All Major Brands In-Stock

CALL, WRITE OF STOP BY FOR YOUR FREE 32 1 GE CATALOG



COMN ERCIAL RADIO OPERATOR LICENSE EXAMINATION

For Elements One and Three

Date: Sunday May 15, 1994

Time: 0900 AM

Site: Springfield, VA 22151 (note: exact location will be given upon registration) ADVANCE REGISTRATION ONLY Send: SASE with Check/Money Order for \$35.00 to:

T.J. O'Brien, AC4HW 7873 Heritage Drive, Suite 569 Annandale, VA 22003 (301) 231-3656 (24 hour)

Annual Computer Service & Check-up

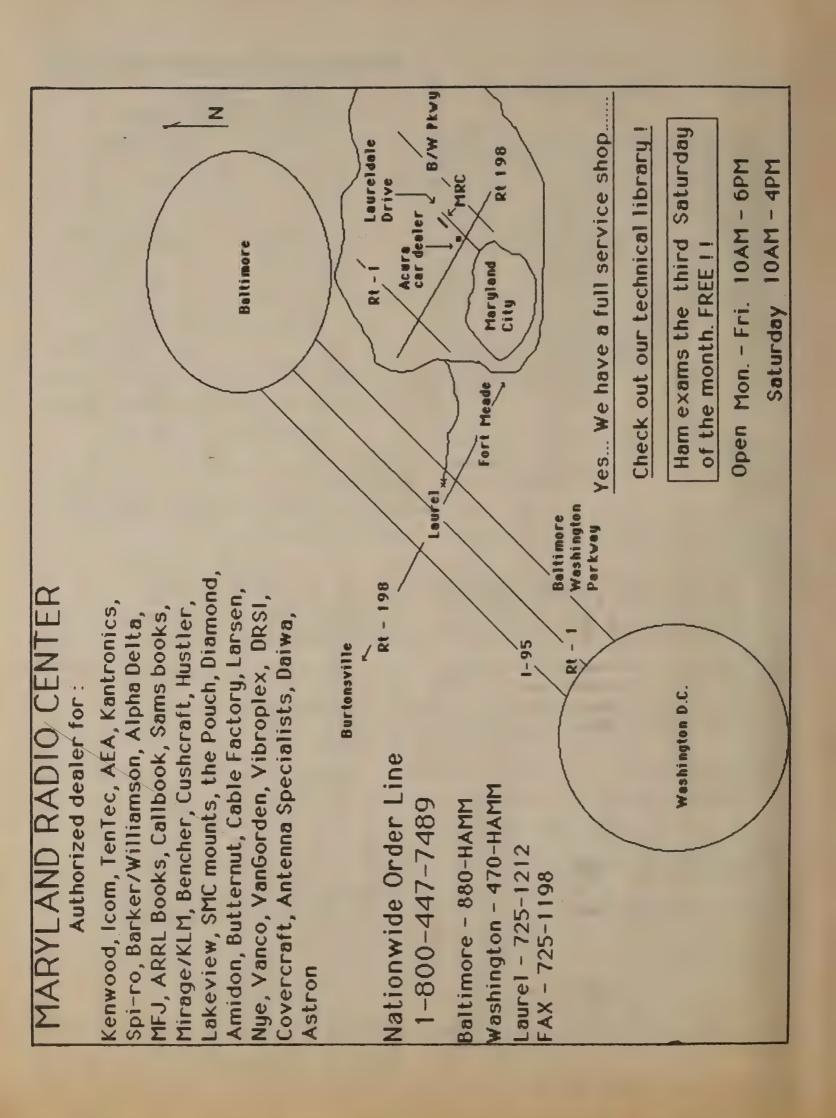
- Disassemble and clean interior
- Hard Disk Diagnostics
- Floppy Disk Diagnostics
- **■** Performance Check
- Clean Exterior
- Defragment Hard Drive

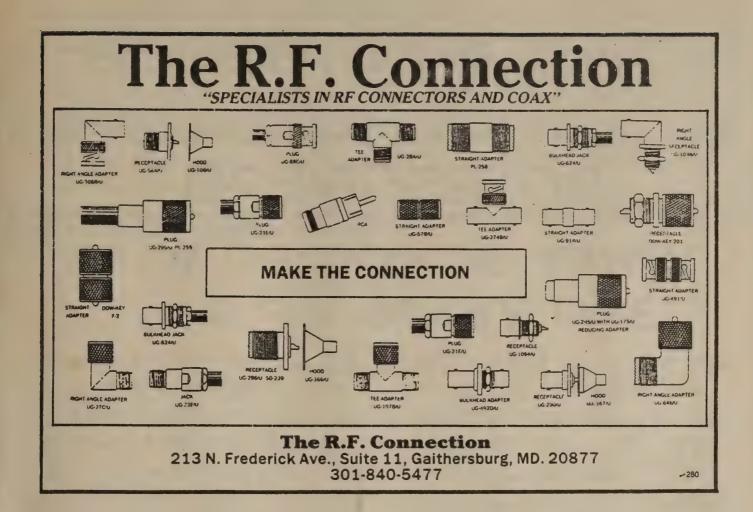
Dirt, Dust and Smoke will kill your computer Let us come in and prolong its life

Special - \$60.00 (Regular \$125.00)
With Mention of this Advertisement

We provide a wide range of computer services for Business and Home users alike. Call us for any special needs you may have.

MICRO DATA COMPUTER SERVICE, INC. (410) 768-6047





CUSTOM EMBROIDERED CAPS GOLF SHIRTS and SWEATSHIRTS

Proudly wear your name and call on a custom embroidered cotton poplin golf cap. 2 button golf shirt or 7.5 ounce sweatshirt. Choose garment, size and thread color and we do the rest! Shirts and sweatshirts to size XXXL*. Your Personalized call apparel will be delivered to you in 5 to 7 days!

Cap Colors Golf & Sweatshirt Colors

Thread Colors

Black White Navy Royal Red Gray Black White Red Gold Navy Royal Jade Ash (Hooded Sweats available) Gold Black White Navy Red Royal Burgundy

CAPS \$13.95 GOLF SHIRTS \$24.95* SWEATSHIRTS \$19.95*

*Add \$2.00 each for sizes XXL and XXXL

Mail or telephone your Name, Address, Phone, Size and Call (plus \$3.50 shipping) to:

MUGS & STITCHES
42 REHOBOTH MALL
REHOBOTH BEACH, DE 19971
800-296-6847

Quantity and club discounts available.

We accept Checks, Money Orders, Visa and MasterCARD

When in the Rehoboth Beach Area stop by to visit Walt - N3OLY

GAND G ELECTRONICS

OF MARYLAND

8524 DAKOTA DRIVE, GAITHERSBURG, MD 20877

301-258-7373

WHAT DO YOU DO WITH 300 YEARS OF QST?

WE HAVE IN STOCK OVER 300 COMPLETE YEARS OF QST, FROM THE PRESENT BACK TO THE MID-TWENTIES. COMPLETE YEARS OF HAM RADIO, CQ, 73, HAM RADIO HORIZONS, AND HUNDREDS OF LOOSE ISSUES OF THESE AND MORE FOR THE COLLECTOR AND EXPERIMENTER. BRING YOUR LIST AND COMPLETE YOUR COLLECTION AT SPECIAL PRICES!

TECH MANUALS FROM HP, TEKTRONICS, BOONTON, GENERAL RADIO, AND MORE.

ALSO FOR THE COLLECTOR:

ANTIQUE CALL BOOKS

FLYING HORSE, ARRL, US GOVERNMENT

SPECIAL PURCHASE:
HUNDREDS OF HEATHKIT MANUALS
NOW AVAILABLE. WHILE THEY LAST!

MONDAY & TUESDAY 11:00 AM TO 9:00 PM
WEDNESDAY 11:00 AM TO 5:00 PM
AND BY APPOINTMENT
VISA and MASTERCARD Accepted

Shack Sales

Non-commercial advertising of Amateur associated equipment is available to subscribers of AUTO-CALL at a rate of 3 cents per word - with a \$1.00 minimum. Commercial vendors and non-subscribers rate is 17 cents per word - with a \$5.50 (1 inch) minimum. Special headings or special spacing (e.g. one item per line) may be used but such ads will be charged at the column inch rate.

Estate sales for Widows assistance handled by a FAR club will be published without cost.

Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone and all ads must be pre-paid. Ads that will be running for longer than 1 month must be accompanied by a letter stating the length that the ad is to be run. Since no effort is made to investigate advertisers, no warranty can be applied.

ALL ADVERTISING & SHACK SALES - COMMERCIAL AND NON-COMMERCIAL SHOULD BE SENT TO:

Doug Allen, Auto-Call Editor 8008 Shadow Oak Lane Pasadena, MD 21122 (410) 437-6258

Copy MUST be received by the 5th of the month prior to the month of publication.

ESTATE SALE

ESTATE OF: Dr. George Murphy TR4XC Transmitter Serial No. 23724

Rc4 Receiver

MS-4 Speaker Power Supply Serial No. 4954

C-4 Station Console Serial No. 1031

MN-4 Matching Network Serial No. 1031

Drake Table Microphone Serial No. 7075

Drake 10 Station Power Master Distribution

Unit 120/140 Volt

All Manuals and Patch Cords

This Equipment will be on display at the next Shenandoah Valley Amatuer Radio Club Meeting.

For Information: Walt Johnson, WA4HVU 667-1474 or Frank Taylor, KE4KF 662-6499

RT ELECTRONICS RADIOS - SCANNERS - ANTENNAS P. O. BOX 2123 WARREN, OH 44484

Discount prices at RT Electronics 10/11 meter radios, antennas, scanners, power supplies and more. 2 meter base antenna \$29.95 144/450 MHZ dual band base antennas from \$59.95

FREE FLYER
P.O. Box 2123
Warren, OH 44484

FOR SALE

WANTED: To purchase 1985 to 1992 catalogs from Hewlett-Packard, Tektronix, Fluke or GenRad. Chris Payne, W3IRC 7704 Beech Tree Road, Bethesda (301) 320-9635 FAX (301) 320-6123 Anytime

FOR SALE

Rhon 25G 85 foot tilt- over tower with tilt-over base and guy cables. Ham-M rotor. TH6DXX six element tri-band beam. Best Offer! Disassembled and ready for pick-up.

Reg, N5DJB (703) 620-4637 FAX (703) 620-0717

YOUR AUTO-CALL SHACK SALE AD COULD BE HERE!

WANTED: Front panel crystal cover for the Johnson Ranger I, and modulation transformer. Also want junker Johnson 500, and Johnson Kilowatt, and Collins 32V1, 32V2, 32V3 and KW-1.. Please write Chuck; P.O. Box 934, Dahlgren, VA 22448.

GREAT FOR PACKET!

GE Radios tuned to 145.03 MHz 100W w/DFE MASTR \$50.00 Or MASTRII \$100.00 RCA Base Station/Repeater for 2-meters 100W \$75.00, RCA 500 6M or UHF Each \$35.00 Motorola Mocom 70 2-meter 40W on CAP repeater Pair \$60.00 WANTED: HEATHKIT WA-A1, W-2, W-3(AM), W-5(M) or similar Audio Amp any condition. Mike

Nowlen, WB4UKB (703) 481-9614

WANTED: To buy inventories of vacuum tubes large or small. Send list of available types. Also wanted Collin SKWM1, KWM2 or Kenmore 430. Cash available immediately. Call Anytime. Levy, W5QJT 2310 Denmark St. S., Apt. 62 Clearwater, FL 34623 (813) 791-4730

WANTED: BC-453 "Q5-ER" Command Set Receiver (190-550 KHz) in good condition. May also buy other models for parts. Also Want: TRS-80 Model 4 for parts. Allan Kaplan, W1AEL (703) 729-2610

WANTED: Dead Atlas 210X with or without accessories. TAD, KB4TUW 3032 Park Ave. #3 Richmond, VA 23221-1633 (804) 358-3732 (7-11 pm. EST)

PERFECT FOR PACKET: Commodore 64 Computer - RGB Color Monitor - Disk Drive -Panasonic Printer - With Software. \$300.00 Debbie - (410) 255-3602

DAVE'S TOWER SERVICE

In Need of Antenna or Tower Work? Installations, Upgrades & Removal of Antennas and Towers Dave Hixon - N3EJT (301) 474-7405

WANTED: COLOR MONITOR you no longer use. KB4QGJ, 524 North Quaker Lane, Alexandria, VA 22304-1827 (703) 370-1880

FOR SALE: KENWOOD TH-225A 2MTR HT with SMC-31 Spkr/Mic, PB-1 12VDC 800 mAH Battery, LH-5 Deluxe Leather Case, PG-3E Filter Cigar Lighter Cord, BC-7 Rapid Charger, Larsen 5/8 Mag Mount Antenna guaranteed good as new - call for details -(410) 329-6725

JWO SERVICES

Discounts On All! ARRL, AMECO, REGB, CALLBOOK WSYI, CQ, GORDON WEST, Etc.

1994 CALLBOOKS, your choice INTERNATIONAL or NORTH AMERICAN, (List \$29.9S) Only \$22.99 each, Special pricing on 10 up, mix or match.

QRZ! HAM RADIO - A callbook on CD-ROM, plus hundreds of other Ham computer programs. New version as of December 1993, (List \$29.95) Only \$22.99.

Complete line of ARRL, AMECO, WSYI and Gordon West Study Guides. Special pricing on 10 up for clubs and classes. Also, CQ videos: Ham Radio Horizons; Getting Started in Amateur Satellites; Getting started in Packet Radio; Getting Started in Dxing; Getting Started in Contesting (List \$19.95) Only \$18.25 each.

W5YI Software: HAM OPERATOR SOFTWARE. Covers Novice through Extra and teaches code; with code tests through 20 WPM! Includes FCC Rule Book (List \$39.9S) Only \$34.99.

Only \$0.30 handling per order plus actual shipping cost. Special services for clubs and classes—call for details! New 1994 Catalog of Savings — Free.

Gift Certificates now available—any value!

JWO SERVICES

12 Hickory Place Phone: (717) 731-4747 Worldwide Shipments

Camp Hill, PA 17011 FAX: (717) 730-9373 Mastercard/Visa Daily to 10 p.m. and Saturday afternoons



BENEFITS FOR YOU

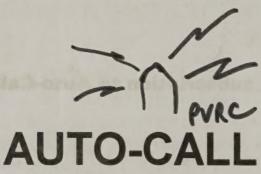
QST, QSL Bureau Awards, Low Cost Insurance, Operating Aids, Government Liaison and More—Much More!

	MEMBERSHIP APPLICATION						
	NAME						
E P TOUR	STREET						
	CITYPRO	V./STATE	PC/ZIP				
*	\$30 in U.S. \$42 elsewhere (U.S. funds). Individuals age 65 and over, upon submitting one-time proof of age, may request special dues rate of \$24 in the U.S. \$36 elsewhere in U.S. funds. Persons age 21 and younger may qualify for special rates, write for application. For postal purposes, fifty percent of dues is allocated to <i>QST</i> , the balance for membership.						
Total Control	VISA, MC, AMEX, DISCOVER						
	Signature Expires The American Radio Relay League						
	225 Main St. Newington, CT. 06111 USA AUTO-CALL						
3	Atlantic Division Director Hugh Turnbull, W3ABC 6903 Rhode Island Avenue College Park, MD 20740 Phone: (301) 927-1797	Joh B	oke Division Dire on Kanode, N4M Rt.1, Box 73-A Boyce, VA 22620 ne: (703) 837-13	M			
P.O. Box 7 Falls Chur	CALL Magazi 612 ch, VA 22040 my NEWRENEWA		subscrir	ation to Auto-Call			
Picase circi	my recount	1/2	3053011				
For 1 Year_	2 Years						
Subscription	rate: \$8.00 per year.						
	(Sample Copy o	f latest issue d to subscription	\$1.00)				
NAME_	English and Report to the terror	parties -	CALL _	KUTKAN LINES			
ADDRES	S						
CITY		STATE	ZII	P			

Make check payable to the Foundation For Amateur Radio

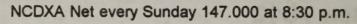
APRIL 1994

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		UO	8038	Anne Arundel Summit Voice America	1 Mobileers SEES Shennandoah	2 Stafford Green Mtn
3	4 Adams County Dept of State IBM	5 Antietam Leisure World PG Wireless	6 BARC MARC	7 AMRAD MADRAS Mt. Vernon No. Virginia QCWA 150	8 Alexandria SMARC Vienna	9 Stafford
10 (MetroCom) 3/6/9/12 <u>EXAMS</u>	Carroll County (PVRC) (9 thru 5 6/7/8 vary)	12 Frederick Fauquier Woodbridge	13 Pentagon S. Patuxent FAR	14 Anne Arundel QCWA #20	15 Rock Creek Shennandoah	16 Capital City Stafford
17	18 Ole VA Hams Sterling Park	19 Antietam Arlington (BRATS) 4/6/8/10/12	20 BARC Goddard MARC (QCWA #137) 1/3/5/7/911	21 MADRAS St. Marys	22 Central MD Vienna	23 Stafford Moose (last)
Adventists (Last)	25	26 Columbia	27 Laurel	28 QCWA #20 (Last)	29	30



P.O. Box 7612 Falls Church, VA 22040-7612

ADDRESS CORRECTION REQUESTED





Nonprofit Organization U.S. Postage Paid Arlington, VA 22210 Permit 757

Indillududddulluddulluddduluddd 94/09 02649 ALFRED A LAUN III K3ZO PO BOX 97 TEMPLE HILLS MD 20757-0097

